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"SYSTEMATIC WATCH" IN THE CORPS REAR AREA

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A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

NEIL C. LANZENDORF, CPT, USA
B.S., Saint Anselm's College, 1979

Fort Leavenworth, Kansas
1990

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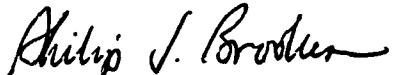
Approved by:


_____, Thesis Committee Chairman
LTC Ronald G. Rada, M.A.J.


_____, Member, Graduate Faculty
MAJ Robert E. Lee, M.A.


_____, Member, Consulting Faculty
LTC Ernest M. Pitt, Jr., J.D.

Accepted this 1st day of June 1990 by:


_____, Director, Graduate Degree
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ABSTRACT

"SYSTEMATIC WATCH" IN THE CORPS REAR AREA, by Captain Neil C. Lanzendorf, USA, 153 pages.

This thesis analyzes the formal and informal information gathering and reporting processes which take place in the rear area of a forward deployed (US) corps in Western Europe. The thesis examines the information gathering capabilities, responsibilities and "opportunities" of organizations typically located within or transiting the corps rear area, to include host nation civilian and military assets. The study identifies information gathering shortfalls of the corps, and recommends ways to enhance information gathering and reporting in the corps rear area.

The study concludes that the deputy corps commander lacks sufficient dedicated surveillance resources to monitor enemy activity and other conditions throughout the vast corps rear area. Because rear operations are an economy of force effort, the deputy corps commander must fully exploit other capabilities available to him. Viable contributors to surveillance of the corps rear area include units normally tasked to provide direct support to corps rear operations; bases and base clusters; transiting units, to include overflying aircraft; host nation assets; and other military forces located in the corps rear area, but not integrated into a base or base cluster. The command and control facilities necessary to accomplish this exist; however, the doctrine does not.

The thesis argues that a reliable system for gauging and monitoring activities in the corps rear area can be created without increasing force structure, but must fully exploit the information gathering capabilities of those assets located within and transiting the corps rear area. Specific recommendations include the creation of a rear area command structure to streamline information gathering and reporting in the corps rear; organization of the corps rear area into RAOC areas of responsibility for the purpose of organizing and coordinating information gathering activities; and the development of an integrated base detection system to help fill gaps in surveillance coverage.

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CHAPTER I

INTRODUCTION

PURPOSE

The U.S. Army's warfighting manual, FM 100-5, Operations, recognizes the need for commanders to establish a "reliable system for gauging and monitoring the situation in the rear area."¹ The purpose of this thesis is to analyze the formal and informal information gathering processes which take place in the corps rear area and determine the extent to which such a system exists. The thesis also recommends ways to enhance information gathering capabilities in the corps rear and integrate the many processes into a single system which is responsive to the information needs of the corps rear CP (command post). The term "systematic watch" is used in the thesis to describe such a system.

Chapter I of the thesis is introductory. It establishes the scope of the research problem, defines key terms, and states the delimitations, limitation and assumptions. Chapter II outlines the research methodology and provides a discussion of the literature. Chapter III includes an overview of the threat to the corps rear area and describes rear area operations doctrine as it exists today. Chapter IV is an historical analysis which focuses upon rear operations conducted by the German Wehrmacht, on

the Eastern Front, during World War II. Chapter V identifies the contributors to "systematic watch" in the corps rear area and describes their actual and potential contributions. Chapter VI presents conclusions, and identifies specific capabilities and limitations of the corps which impact upon its ability to monitor activities in the rear area. Chapter VII provides recommendations for implementation of "systematic watch" in the corps rear area.

The thesis uses current rear operations doctrine as its foundation in formulating a "systematic watch" concept which fully exploits the information gathering capabilities of those assets normally located within or transiting a corps rear area. The thesis seeks to answer the question, "How can the corps rear CP best monitor threat activities and other conditions in the corps rear area?" In doing so, the following subordinate thesis questions are addressed:

-- What threat activities and other conditions in the corps rear area are of interest to the corps rear CP?

-- What is current U.S. Army doctrine for information gathering in the corps rear area?

-- What are the current information gathering capabilities and limitations of the corps in its rear area?

-- How and to whom is this information communicated?

PROBLEM

The key to success of corps rear operations is the ability to anticipate events and "see" the battlefield.² A potent intelligence capability is crucial to survival and success in the corps rear. It is essential that rear operations predict and preempt rather than react. The rear commander must have the ability to forestall enemy moves to prevent toeholds from becoming footholds, and footholds from becoming bridgeheads. With the right intelligence assets supporting rear operations, a platoon can do the job that would require a company or battalion in the absence of adequate intelligence.³

The deputy corps commander lacks the resources he requires to simultaneously monitor all vital areas, activities and facilities in the corps rear. The impact of this problem is certainly exacerbated by the vast size of the corps rear and the numerous type units and host nation organizations operating within and transiting it. It is essential that the deputy corps commander fully exploit those capabilities which he does have.

The information gathering capabilities and responsibilities of units and organizations located within and transiting the corps rear area are diverse. MP (military police) monitor activities and collect information in the corps rear area as a mission requirement. MI (military intelligence), SOF (special

operations forces) and certain host nation assets share this responsibility, though to a much lesser degree. Transportation, engineer and ADA (air defense artillery) units, to name just a few, routinely collect information incident to the performance of their primary support missions in the rear area. Air and ground elements transiting the corps rear also collect information which may be of interest to the corps rear CP.

This information, once gathered, is reported through a variety of technical and tactical communications channels. It is easy to see how the information might be distorted or delayed as it is sequentially processed through a myriad of headquarters and CPs. In fact, the information may never be received at the corps rear CP, the headquarters responsible for planning and executing operations in the corps rear area.

BACKGROUND

The corps conducts close, deep and rear operations simultaneously. Synchronization of these operations is crucial to success on the battlefield. Though they are executed in separate arenas and may employ different combat, CS (combat support) and CSS (combat service support) assets, they have a combined impact upon the course of the battle.

At corps level, close operations comprise the efforts of divisions, separate brigades and regiments to

win current battles. Close operations bear the ultimate burden of victory or defeat.⁴ Deep operations are conducted to influence the conditions in which future close operations will be executed. The principal targets of deep operations are the freedom of action of the opposing commander, and the coherence and tempo of his operations. Successful deep operations create the conditions for future victory.⁵

The corps conducts rear operations to insure freedom of maneuver and the continuity of sustainment and C2 (command and control). The corps rear area can be considered the Achilles heel in ALB (AirLand Battle). The deep battle, successfully executed, offers a promise of victory; the fight at the FLOT (forward line of own troops) offers victory or potential defeat; but, the corps rear area offers only defeat if not given the fullest measure of attention. In short, you cannot win the war in the rear, but you can certainly lose it there.⁶

Fighting in the corps rear can divert critical combat power from close and deep operations. For this reason, rear operations must be accomplished without using combat forces if at all possible. Personnel and units in the rear area must make full use of their own combat capabilities through sound planning and execution.⁷ The measure of success for rear operations is its eventual impact upon close operations.

The deputy corps commander must have accurate and timely information regarding activities in the corps rear area to avoid late or inadequate responses and to guard against overreaction to exaggerated reports.⁸ He must be prepared to respond to threat interdiction of the rear area or other conditions which might jeopardize the assembly and movement of reserves, redeployment of fire support, maintenance and protection of the sustainment effort, and the continuity of C2.

DEFINITION OF KEY TERMS

Systematic Watch. Systematic watch is defined in this thesis as continuous surveillance of the (corps) rear area for the purpose of detecting, monitoring and reporting threat activities and other conditions of interest to the corps rear CP. Systematic watch seeks to exploit all available civilian and military sources of information in the corps rear area.

Corps Rear Area. The corps rear area is that area of the battlefield which extends from the corps rear boundary to the rear boundaries of committed maneuver units, normally divisions.⁹ The corps area of interest for rear operations extends forward to the rear boundaries of committed brigades within committed divisions, as well as to the rear and flanks of the corps.¹⁰

Host Nation Support. Host nation support is defined as civil and military assistance rendered in peace

and war by a host nation to allied forces and treaty organizations which are located in or transit through the host nation's territory.¹¹

Rear Operations. Rear operations, at any echelon, comprise activities rearward of elements in contact designed to assure freedom of maneuver and continuity of operations. Rear operations include sustainment, terrain management, movement control and security.¹²

Intelligence. Intelligence is data which requires some form of validation, integration and comparison with other data (analysis) before it can be used or fully exploited. It is generally of immediate or potential significance to military planning and operations.¹³

Combat Information. Combat information is raw data that can be used for fire and maneuver decisions as received without further processing, interpretation or integration with other data.¹⁴

DELIMITATIONS

The thesis examines the information gathering capabilities and responsibilities of those units assigned to a "typical" heavy (US) corps organization as depicted at Figure 1-1. There is no standard organizational structure for a (US) corps; corps are tailored to the theater and mission for which they are deployed. However, the information gathering capabilities of a corps, in its rear

area, are influenced by its particular organizational structure.

The corps is examined in the context of its deployment in the FRG (Federal Republic of Germany), a friendly nation with an effective government and HNS (host nation support) structure in place. The presence of an effective host nation government serves to define liaison requirements in the rear area, and impacts upon the likely role of SOF which may be assigned to the corps.

The threat to the corps rear area consists of Soviet and Warsaw Pact military forces conducting deep operations in support of a main attack against the corps.

The thesis does not examine information gathering and reporting processes which may take place in the rear area of echelons above or below the corps.

Research material is limited to the most current doctrinal publications (field manuals), regardless of their publication date; other student theses and papers, as far back as 1975 because of their paucity; and military periodicals back to 1986.

LIMITATION

There is very little research material available which focuses upon information gathering processes in the corps rear area. The material which is available tends to address the subject of information gathering in the

broader context of rear operations, rear area security or C2.

ASSUMPTIONS

The thesis assumes that support agreements exist between the corps and host nation government. These agreements define the extent to which host nation assets can contribute to surveillance of the corps rear area.

Systematic watch in the corps rear area cannot be achieved through increases in force structure, though this does not preclude the sensible reallocation of forces to the rear area. Any system established to monitor and gauge activities in the corps rear area must fully exploit the capabilities of those units and assets typically located within or transiting it.

The corps rear CP is interested in both intelligence and combat information. A timely response to enemy activity in the rear area may demand that information be exploited prior to its being fully analyzed.

SIGNIFICANCE OF THE STUDY

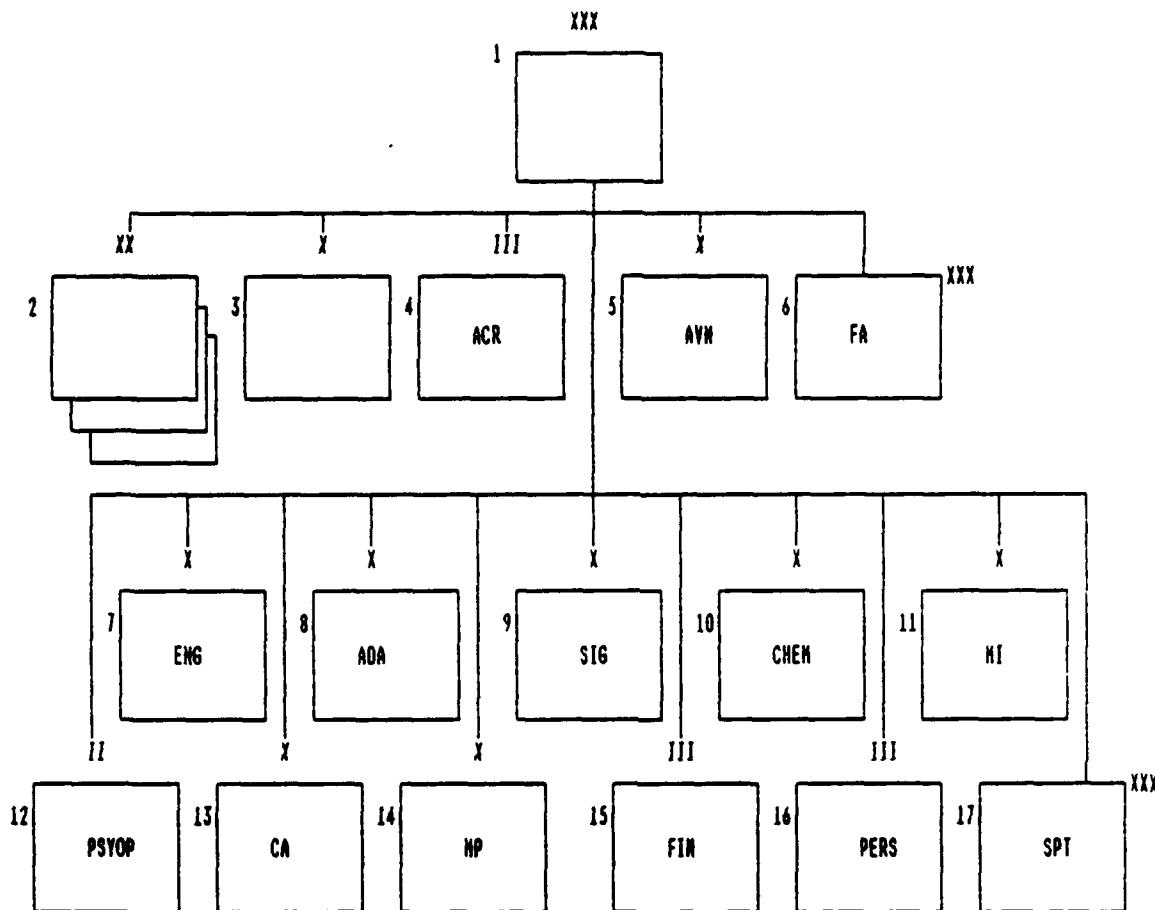
The thesis provides a focused look at information gathering processes which take place in the corps rear area. Most rear area studies examine broader subjects such as rear area threat, area security and response, or C2. These same studies tend to ignore the aspect of information collection, or falsely assume that information is gathered "as required," with some degree of perfection.

Our doctrine generally treats information gathering in the corps rear area as a proponent function, as an exclusive responsibility or mission of MP and MI units. In actuality, "threats to the corps rear must be monitored by all available assets."¹⁵ This thesis treats the information gathering and reporting capabilities and "opportunities" of all units located within or transiting the corps rear area as components of a single system, with responsibility shared by all units of the corps. The thesis also examines the potential contribution of the USAF (United States Air Force) and various host nation assets to surveillance of the corps rear area.

Our doctrine suggests that there is a close relationship between accurate and timely information gathering in the corps rear area, and the success of rear and close operations. The thesis offers numerous examples which affirm the critical nature of this relationship. One example involves the impact of committing the corps TCF (tactical combat force) to rear operations. The response to threat activity in the corps rear area may be an "on call" mission for a maneuver division, a brigade or an aviation unit. In the event such a force were needed in the rear, it must first be withdrawn from the forward battle area. The withdrawal and movement of this massive force would take time to accomplish and might perilously degrade close operations. It is essential that commitment

of this force be justified and that its movement rearward be unimpeded. This clearly demands timely and accurate information about enemy activity in the corps rear area and the condition of movement routes.

CORPS UNITS



- | | |
|----------------------------------|--|
| 1. (US) CORPS (HVV) | 10. CHEMICAL BRIGADE |
| 2. MANEUVER DIVISIONS | 11. MILITARY INTELLIGENCE BRIGADE |
| 3. SEPARATE MANEUVER BRIGADE | 12. PSYCHOLOGICAL OPERATIONS BATTALION |
| 4. ARMORED CAVALRY REGIMENT | 13. CIVIL AFFAIRS BRIGADE |
| 5. AVIATION BRIGADE | 14. MILITARY POLICE BRIGADE |
| 6. CORPS ARTILLERY | 15. FINANCE GROUP |
| 7. ENGINEER BRIGADE | 16. PERSONNEL GROUP |
| 8. AIR DEFENSE ARTILLERY BRIGADE | 17. CORPS SUPPORT COMMAND |
| 9. SIGNAL BRIGADE | |

Figure 1-1: Typical Forward Deployed Corps

ENDNOTES

1. U.S. Army, FM 100-5, Operations (1986): 39.
2. Crosbie E. Saint and Walter H. Yates, "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review, Vol. LXVIII (October 1988): 5.
3. Ralph C. Marinaro, "Rear Operations Doctrine: A Reevaluation," Military Police Journal, PB 19-87-2 (September 1987): 14.
4. U.S. Army, FM 100-5, Operations (1986): 19.
5. U.S. Army, FM 100-5, Operations (1986): 19.
6. Ralph C. Marinaro, "Rear Operations Doctrine: A Reevaluation," Military Police Journal, PB 19-87-2 (September 1987): 12.
7. U.S. Army, FM 41-10, Civil Affairs Operations (1985): 2-13.
8. U.S. Army, FM 100-5, Operations (1986): 149.
9. U.S. Army, FM 100-15, Corps Operations (1989): 3-3.
10. U.S. Army, FM 100-15, Corps Operations (1989): D-1.
11. U.S. Army, FM 90-14, Rear Battle (1985): A-1.
12. U.S. Army, FM 90-23, Rear Security Operations: Army-Tactical Air Force Procedures for Rear Security Operations at Echelons Above Corps (1989): Glossary-5.
13. Joseph A. Bolick, "Soviet Tactical Surprise: The Doctrine and How to Counter It," (School of Advanced Military Studies Program, USACGSC, 1987): 26.
14. U.S. Army, FM 90-8, Counterguerrilla Operations (1986): 6-16.
15. Crosbie E. Saint and Walter H. Yates, "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review, Vol LXVIII (October 1988): 6.

CHAPTER II

METHODOLOGY AND REVIEW OF LITERATURE

METHODOLOGICAL APPROACH

The objectives of the thesis are, to analyze those formal and informal information gathering processes which take place in the corps rear area; recommend ways to enhance information gathering and reporting in the corps rear; and, integrate the processes into a single system which is responsive to the information needs of the corps rear CP. This system is referred to as "systematic watch." The methodology implemented to achieve these objectives reflects four distinct steps.

The first step of the methodology establishes the overall framework of the thesis. This step includes actual definition of the problem and its scope; development of the "systematic watch" concept; determination of a baseline force structure (corps); and, identification of threat activities and other conditions of interest to the corps rear CP.

The research problem was defined subsequent to a review of FM 100-15, Corps Operations and FM 100-5, Operations, and in coordination with Lieutenant Colonel Ronald G. Rada, Rear Operations SME (subject matter expert), USACGSC (United States Army Command and General Staff College), Fort Leavenworth, Kansas. To summarize

the problem, the deputy corps commander requires a reliable system with which to gauge and monitor activities in the corps rear area. The command and control structure necessary to accomplish this appears to be in place, provided by the corps rear CP and subordinate RAOCs (rear area operations centers). However, the information gathering and reporting processes which take place in the corps rear area, and would appear to support such a system, are neither systematic nor integrated.

The term "systematic watch" is not used in current doctrinal literature. It is a term developed exclusively for the purpose of this thesis and is defined as "continuous surveillance of the (corps) rear area for the purpose of detecting, monitoring and reporting activities and conditions of interest to the corps rear CP." "Systematic watch" seeks to exploit all available means of information gathering in the corps rear area. The deputy corps commander requires an information gathering and reporting system which is robust and flexible enough to accommodate input from various sources in the corps rear area.

The baseline force structure is extracted from FM 100-15, Corps Operations. Corps are tailored to the theater and mission for which they are deployed. A "typical" (US) corps is identified (Chapter I) for the purpose of examining the information gathering

capabilities of a specific organization and its subordinate elements.

The thesis identifies enemy activities and other conditions of specific interest to the corps rear CP. Enemy interdiction of vital support functions in the corps rear is of obvious concern to the deputy corps commander. Enemy activity in the rear area affects all facets of rear operations, to include the positioning of support units (terrain management) and the configuration of rear area response forces. Information pertaining to enemy activity in the rear area is needed to facilitate dissemination of early warning to bases and base clusters, to anticipate and preempt enemy follow-on actions, and to ensure that the corps TCF is committed at the appropriate time and place. A general description of the enemy threat to the corps rear area is at Chapter III.

Other conditions in the corps rear area are also of interest to the deputy corps commander. Obstructed movement routes and chemically contaminated areas are examples of such conditions. Obstructed movement routes must be quickly identified so that alternate traffic plans can be implemented and the necessary combat support (MP for traffic control and engineers for repairs) committed. Contaminated areas must be quickly and accurately identified and reported so they can be properly marked, traffic diverted, and units provided early warning.

The second step of the methodology determines the information gathering capabilities and responsibilities of the baseline force. This step also includes a review of current rear operations doctrine and the historical analysis.

Information gathering in the corps rear area should be viewed in the context of rear operations doctrine, as much of this information is actually gathered by units conducting rear operations. However, this doctrine has changed considerably during recent years. The doctrine is defined and recent changes to it discussed at Chapter III.

The research includes a specific effort to define current Army doctrine for information gathering in the corps rear area, realizing that this doctrine, if it exists, may be embedded in proponent FMs (field manuals). The thesis assesses the degree to which current rear operations doctrine dictates, or merely accommodates, the systematic gathering of information in the corps rear area.

A thorough review of doctrinal literature, primarily FMs, is conducted to determine the specific information gathering capabilities and responsibilities of military forces and host nation organizations operating within or transiting the corps rear area. US military forces of interest include those units assigned to a typical corps, other Army units transiting the corps rear

area, and overflights by USAF and Army aircraft. Host nation organizations of interest include government, military and police organizations. The potential contribution of the local populace to surveillance of the corps rear area is of special interest and is also examined.

The thesis categorizes the contributors to "systematic watch" of the corps rear area as either "primary" or "opportunistic" information gatherers. The primary gatherers are those elements and organizations with both a responsibility (as established by doctrine or agreement) and a capability (means) to gather and report information of interest to the corps rear CP. The opportunistic gatherers are those elements and organizations without a defined responsibility (or mission) to gather information in the corps rear area, but with apparent opportunities and a capability to do so. The thesis also examines the information reporting channels currently in use by each contributor. Chapter V provides a detailed description of the information gathering responsibilities and capabilities of units and organizations located within or transiting the corps rear area.

The thesis includes an historical analysis to gain insights into how the Wehrmacht (German Army) conducted rear operations against Russian partisan and military forces on the Eastern Front during World War II. This particular campaign is analyzed for two reasons. First,

it is a fairly well documented military operation. Second, there are striking parallels between this campaign and any future mid-high intensity conflict which might develop involving NATO and Warsaw Pact forces on the continent of Europe. The historical analysis is at Chapter IV.

The third step in the methodology identifies specific information gathering and reporting shortfalls in the corps rear area. The shortfalls are discussed at Chapter VI, in the context of their apparent origin(s) (doctrine, force structure or training) and their impact upon operations in the corps rear area. Those information gathering processes which appear to be most critical or promising are highlighted.

The fourth step in the methodology develops and recommends ways to enhance information gathering and reporting in the corps rear area. Recommendations are presented in the context of changes to doctrine, force structure or training, while recognizing that real-world force structure constraints exist and limit the feasibility of recommendations which increase the size of the force. This step includes the formulation of recommendations which serve to integrate the various rear area information gathering processes into a single system which is responsive to the information needs of the corps rear CP.

REVIEW OF LITERATURE

The nature of the thesis topic demands that supporting research include an in-depth review of published doctrinal literature, particularly FMs. FMs provide a clear statement of Army doctrine and are a logical source of information pertaining to the type units located within or transiting a typical corps rear area. FMs are also useful in defining the organizational structure and density of these units, as well as their actual information gathering and reporting capabilities and responsibilities.

Proponent FMs are also of some use in assessing how specific CS and CSS units located in the corps rear might gather information incident to the performance of their normal support missions in the rear area. An important distinction is made here. Contributors to "systematic watch" in the corps rear area are not limited to those units and organizations with specific information gathering responsibilities as defined in our current doctrinal literature.

Though FMs are useful in assessing information gathering and reporting capabilities and responsibilities in the corps rear area, they have at least one significant limitation. Doctrinal publications tend to be rather sterile and optimistic. They usually fail to address key shortfalls and deficiencies in doctrine, force structure

and training. For this reason, research in support of the thesis includes unpublished theses, papers and studies. At least in the case of rear operations doctrine, these unpublished sources provide some interesting insights into problems which plague C2 in the corps rear area. They also suggest some interesting solutions to these problems.

FM 100-15, Corps Operations is the sole reference used in this thesis to define the organizational structure of a "typical" forward deployed (US) corps, bearing in mind that corps are tailored to the theater and mission for which they are deployed. By defining the composition of a typical corps at the outset, its subordinate units can be systematically studied (using proponent FMs) to determine their actual and potential contributions to "systematic watch" in the corps rear area. FM 100-15 was published in 1989, thus the information which it contains on corps rear operations incorporates the many changes to rear operations doctrine which have occurred during recent years. In fact, FM 100-15 is one of the Army's few doctrinal publications to accurately describe the current C2 structure for rear operations from the corps rear CP down to the individual base and base cluster level in the corps rear area.

Because of the many changes in rear operations doctrine during recent years, the U.S. Army's doctrinal

publication for rear operations, FM 90-14, Rear Battle (dated 1985), is outdated, though many of its concepts are still valid. FM 90-14 is to be superseded by a series of Army FMs, each of which will address rear operations at a particular command echelon (corps through brigade). FM 90-14 does provide a detailed description of host nation capabilities and responsibilities for support of rear operations in the FRG. It addresses particularly well the contribution of the GTA (German Territorial Army) and German Feldjaeger (military police) to rear operations. Unfortunately, information provided on their role in the collection of information in the rear area of a forward deployed corps is less detailed.

Kenneth R. Pierce, in his paper titled "Command and Control of Corps Rear Operations," addresses what he perceives to be key C2 shortfalls in the corps rear area. His emphasis is upon shortfalls of the corps RAOCs, particularly their time-phased deployment as a reserve component asset and limited organic communications capability. Pierce also discusses training and force structure deficiencies caused by a dual reporting system for technical and tactical operations in the corps rear area. His most interesting contribution to the thesis lies in his recommendation to consolidate the corps RAOCs and MP command structure. He suggests that such a

marriage would enhance the objectives of rear operations and improve the accuracy of intelligence.¹

Jo B. Rusin, in his report titled "Soviet Threat to Combat Service Support Forces: A Training Challenge," evaluates the capabilities and vulnerabilities of CSS units in the rear area. Rusin also identifies specific training and force structure deficiencies which impact upon security and C2 in the corps rear area. His major contribution to the thesis is his emphasis upon the capability of CSS units to collect intelligence during the course of their day-to-day support operations.

David L. Crocker, in his monograph titled "Rear Battle at Corps Level: Are We Prepared?", argues the need to integrate all means of detecting enemy activity into a uniform base defense system. Crocker states that early warning of enemy activity is essential in providing adequate time for response, and to contain and defeat the enemy before he can inflict damage upon the rear area support structure. Crocker sees the extensive and integrated communications capability of the MP brigade as an effective means of supporting C2 and monitoring the corps rear area.²

Ralph C. Marinaro, in his Military Police Journal article titled "Rear Operations Doctrine: A Reevaluation," suggests that the addition of organic weapons platoons (anti-tank and mortar) to the corps MP brigade

force structure, as well as better armed CS and CSS units, would greatly enhance firepower in the corps rear area and might avert commitment of the corps TCF to the rear. Marinaro offers three suggestions aimed at enhancing rear area security in general, but with clear benefits to C2 and information gathering in the corps rear area. First, he suggests that the AC-130 Spectre gunship, a USAF asset, might be a viable alternative to the commitment of attack helicopters in the corps rear area. The AC-130 has tremendous day and night surveillance, and precision fire-power capabilities, all of which might be fully exploitable in the corps rear area. Second, he suggests breaking up corps RAOCs into BDOC (base defense operations center) and BCOC (base cluster operations center) command teams, and assigning them to bases and base clusters on an as needed basis to provide a "full and continuous link with the rear operations structure, HNS, CMO (civil and military operations) and the MI structure.³ Finally, he suggests augmentation of the corps MP brigade with a small aviation section to enhance area surveillance capabilities, the responsiveness of C2 and response force mobility. Marinaro closes his article by recognizing that "a potent intelligence capability is crucial to survival and success in the corps rear area."⁴

There is an abundance of information available on the Soviet and Warsaw Pact threat to the rear area of

forward deployed forces in Europe, though it is sometimes difficult to draw a clear distinction between the threat to the corps rear and the threat to the rear of echelons above and below the corps. In any event, the threat to the rear area of any forward deployed force in Europe must be assessed in the context of the Soviet's operational objectives. The deep strike assets committed by the Soviets in support of a main attack would be considerably greater than those committed to a supporting effort. However, the focus of this thesis is upon the corp's information gathering capabilities at the onset of hostilities. These capabilities would not vary much as a function of the Soviet's decision to launch either a main or supporting attack against the "typical" corps. For this reason, the threat is described in fairly general terms at Chapter III.

FM 100-2-1, The Soviet Army: Operations and Tactics provides an overview of Soviet deep operations principles, though in very limited detail. Perhaps not surprisingly, FM 34-1, Intelligence and Electronic Warfare Operations offers a more detailed description of the rear area threat to NATO forces in Europe, with a focus upon the missions and capabilities of Soviet UW (unconventional warfare) forces. Stephen Becker, in his paper titled "RACO - A Definition of Responsibility," describes the paralyzing effect of Soviet deep strike forces upon the

military, political and economic systems of their target countries. As a final observation, there is very little research material available which supports a comparison between specific levels of threat activity in the corps rear area, and the most effective means of detecting and monitoring the activity.

The review of doctrinal literature reveals that there are four primary gatherers of information in the typical corps rear area. Again, primary gatherers are those elements and organizations with both a responsibility and a capability to gather and report information of interest to the corps rear CP. The primary gatherers are MP, elements of the MI brigade, host nation assets in general, and some SOF. The doctrinal research also resulted in the identification of numerous opportunistic information gatherers in the corps rear area. Again, opportunistic gatherers are those elements and organizations without a specified responsibility to gather information, but with apparent opportunities and a capability to do so while executing their primary support missions in the rear area. The actual and potential contributions of both type gatherers to "systematic watch" are discussed at Chapter V.

FM 19-1, Military Police Support for the AirLand Battle provides an excellent overview of the corps MP brigade's mission, organization and C2 structure within

the corps rear area. The manual also provides insight into how MP contribute to surveillance of the corps rear area through execution of their primary battlefield missions, BCC (battlefield circulation control) and area security. FM 19-1 also describes how CID's (criminal investigations division) intelligence data network can help to keep track of terrorist and criminal activities in the corps rear area. FM 19-4, Military Police Team, Squad and Platoon Combat Operations provides a "nuts and bolts" view of how MP at the small unit level gather and report information in the corps rear. The manual specifically describes how security patrols, observation posts, TCPs (traffic control posts), mobile patrols, checkpoints and straggler posts can contribute to the collection of HUMINT (human intelligence).

According to MI doctrinal literature, assets of the MI brigade are generally weighted forward in support of close and deep operations. This constrains the brigade's actual contribution to surveillance of the corps rear area. FM 34-1, Intelligence and Electronic Warfare Operations discusses the brigade's rear area support capabilities, particularly the organization and role of the brigade's CI (counterintelligence) assets. CI assets collect HUMINT through normal liaison activities with the local population. FM 34-1 also addresses the brigade's considerable COMINT (communications intelligence), ELINT

(electronic intelligence) and additional HUMINT capabilities, and provides a listing of potential information sources in the rear area. FM 34-60, Counterintelligence emphasizes the critical role of the MI brigade in formulating and updating the rear area IPB (intelligence preparation of the battlefield).

Doctrinal literature emphasizes the potential contribution of host nation assets to surveillance of the corps rear area. Our doctrine reflects that numerous corps organizations routinely coordinate and conduct direct liaison with host nation assets in the rear area. There is also little evidence that this activity is centrally managed at corps level. If in fact it is not, there exists potential for confusion and duplication of effort. FM 90-14, Rear Battle describes GTA and Feldjaeger contributions to operations in the corps rear area. FM 19-1, Military Police Support for the AirLand Battle provides an expanded description of host nation capabilities in the rear area, to include the contribution and intelligence role of the civilian police. FM 41-10, Civil Affairs Operations provides insight into how the local government structure can help to monitor and report activities in the rear area.

FM 100-15, Corps Operations provides an overview of the structure, missions and capabilities of SOF assigned to a typical forward deployed corps. SOF support to a

forward deployed corps, in a mature theater, would normally be limited to CA (civil affairs) and PSYOP (psychological operations) units, at least early in the hostilities. FM 41-10 describes how CA liaison teams might supplement the intelligence cycle at the operational and tactical levels through their identification of local civilian sources of information about enemy order of battle.⁵ FM 33-1, Psychological Operations explains how the corps PSYOP battalion can contribute to surveillance of the corps rear area through its normal reconnaissance and surveillance activities, and through contacts with displaced persons and refugees.

Department of the Army (DA) Pamphlet No. 20-240, Historical Study, Rear Area Security in Russia: The Soviet Second Front Behind German Lines was the principal reference used in the historical analysis. DA Pamphlet No. 20-240 was written during the early 1950s and reflects the first-hand accounts of German officers who participated in operations on the Eastern Front during World War II. The reference focuses upon the Russian threat to Army Group Center's rear area during the period 1941-1945, and upon the Wehrmacht's activities to counter and neutralize the threat. As is the case with much of our doctrinal literature of today, DA Pamphlet No. 20-240 discusses information gathering processes in the broader context of rear operations, not as a separate rear area activity.

The monograph by James L. Sanders titled "Combat Power in the Rear: Balancing Economy of Force and Risk" examines German rear operations on the Eastern Front from a different perspective. Saunders compares our rear operations doctrine of today with that of the Germans during World War II. He suggests that we relook our doctrine to examine the balance between rear combat power, as an economy of force effort, and acceptable levels of risk. The value of Saunderson's work to this thesis lies in its description of measures implemented by the German rear area command to find, isolate and destroy Russian partisan and military forces operating in its rear area.

The articles in Military Police Journal by Charles Heller (German Rear Area Protection, Eastern Front 1942 - 1944, published in the Spring 1987 edition) and Bruce Alexander (The Front Behind the Lines: The German Experience with Rear Area Security in Russia, published in the Fall 1986 edition) shed additional insight into the general nature of German rear security operations on the Eastern Front during World War II. However, they fall short of providing a sufficiently detailed analysis of specific measures employed by the Wehrmacht to monitor activities in its rear area.

US Army doctrine tends to address information gathering in the rear area in the most general terms, and usually in the context of rear operations overall. There

is also very little attention paid to the opportunistic gathering of information. As an example, ADA units would seem to be particularly good opportunistic gatherers of information in the corps rear area. Their tactical dispersion throughout the rear area, frequent displacement, concealment once positioned, and employment in the vicinity of key terrain (areas of enemy interest) would appear to provide unique opportunities to gather information of interest to the corps rear CP. However, ADA manuals generally fail to address information gathering except as it applies to the detection of approaching aircraft. MP and MI doctrinal manuals are noted exceptions to this general observation, probably because information gathering is a specific support task of both type units.

Our manuals superficially address the potential contribution of specific systems and platforms to surveillance of the corps rear area. Observation helicopters, GSR (ground surveillance radar) and USAF AC-130 aircraft can render a significant contribution to surveillance of the corps rear area; yet, their employment in this role receives only passing mention. There exists a pervasive belief that because rear operations are an economy of force effort, there is little utility in exploring the employment of multi-use systems in a rear area surveillance role.

In their Military Review article titled "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Crosbie Saint and Walter Yates discuss the role and capabilities of the corps aviation brigade, particularly its attack helicopter battalion, in the corps rear area. The authors argue that the AH-64 Apache is uniquely suited to the role of countering a large enemy force in the corps rear area. Its utility in this role is due primarily to its firepower, ability to move quickly over great distances, day and night operational capability, and command and control facilities. The authors expound upon the benefits to be gained by employing the AH-64 to quickly locate and fix the enemy in the rear area.

Norman L. Dodd, in his article from Asian Defence Journal titled "Battlefield Radars for Detection and Surveillance," describes how advances in both infrared and radar technology since 1950 have greatly improved battlefield surveillance and detection capabilities. His description of US systems focuses upon the AN/PPS series of radars and their employment. Dodd describes how the AN/PPS 15-B radar can be used for base security, with a potential configuration allowing movement of traffic onto and from the base without triggering an alarm. Dodd's article does not address the question of the radar's availability to rear area units, which is already known to

be very limited. He does emphasize the need for redundancy in the employment of radars to detect intruders on the battlefield and elsewhere, citing the importance of properly trained soldiers in addition to detection systems.

A recurring theme in the research material is the use of combat units to monitor enemy activities and other conditions in the rear area. FM 90-8, Counterguerrilla Operations describes how armored cavalry, scout and LRSU (long-range surveillance units), all of which can be found in a typical forward deployed corps, can conduct reconnaissance and surveillance operations in remote areas such as those found between bases and base clusters. FM 90-8 is useful as a reference in this thesis if one accepts that the guerrilla threat in a counterinsurgency operation is similar to the agent, saboteur and terrorist threat to the corps rear area in a mid-high intensity conflict.

Glenn Harned, in his article from Military Review titled "Offensive Rear Battle," also parallels the low level threat to rear operations in a mid-high intensity conflict, with guerrilla activities in a low intensity scenario. Harned argues for the employment of offensive tactics (aggressive patrolling) in the rear area to monitor and secure terrain which might otherwise remain unobserved (and unsecured) for extended periods of time.

He cites the effective employment of company and platoon-sized rear area security forces (Jagdkommandos) by the Wehrmacht on the Eastern Front during World War II, as proof of the need to adopt offensive tactics when combatting Soviet deep attack forces. Harned acknowledges that rear operations are an economy of force effort and that MP are much too limited a resource to maintain a viable presence on vital lines of communication, while monitoring the myriad of isolated areas between logistic facilities, bases and base clusters. He suggests that patrol teams could (and in fact should) be comprised of forces other than MP. His alternatives include national territorial forces (in a mature theater such as Europe), a mix of US and national territorial forces, or US SOF if allocated by the theater commander. Harned states that SOF might be available to support rear operations upon completion of their deep missions at the onset of hostilities.

There are indications that implementation of a "systematic watch" concept in the corps rear area would require a reexamination of our current rear operations doctrine, particularly as it pertains to C2. Under our current doctrine, actual and potential contributors to "systematic watch" in the corps rear area report information through a variety of technical and tactical reporting channels. The information reporting capabilities and

responsibilities of organizations situated within a base or base cluster are fairly straightforward; information is passed from the BCOC (or separate BDOC) directly to the appropriate RAOC. However, many of the corps' potential information sources do not operate within a base or base cluster. Host nation assets are the obvious example; there are many others. Army aviation and USAF assets report information through the A2C2 (Army airspace command and control) or the TAC (tactical air control) systems, respectively. Highway management personnel report information to the corps MCC (movement control center). Engineer units performing ADC (area damage control) functions along designated MSRs (main supply route) in the corps rear area report information through command channels which are established on the basis of their particular support relationship.

ENDNOTES

1. Kenneth R. Pierce, Jr., "Command and Control of Corps Rear Operations" (USAWC Military Studies Program Paper, USAWC, 1986):15.
2. David L. Crocker, "Rear Battle at Corps Level: Are We Prepared?" (USAWC Military Studies Program Paper, USAWC, 1986): 12.
3. Ralph C. Marinaro, "Rear Operations Doctrine: A Reevaluation," Military Police Journal PB 19-87-2 (September 1987): 14.
4. Ralph C. Marinaro, "Rear Operations Doctrine: A Reevaluation," Military Police Journal PB 19-87-2 (September 1987): 14.
5. U.S. Army, FM 41-10, Civil Affairs Operations (1985): 2-1 & 2-2.

CHAPTER III

THREAT AND REAR OPERATIONS DOCTRINE

THREAT TO THE CORPS REAR AREA

A major principle of Soviet military doctrine is the disruption of their adversary's rear area through the use of agents, saboteurs and terrorists. The Soviets may also employ special action and diversionary forces, attacks by maneuver units, and aerial and artillery fires to maximize this disruption. Attacks against rear area targets may appear to be independent operations, but are normally executed as an extension of the close operation.

The goal of Soviet deep operations is to cause their enemy's forward defenses to collapse. Soviet forces seek to accomplish this by attacking the enemy's support and sustainment capabilities; forcing the diversion of enemy combat forces from close operations; and demoralizing the enemy's combat and support forces.¹

The Soviets successfully employed partisan and UW forces against the rear area of the German Army during World War II. Soviet UW forces may be directed against US forces in any future conflict between the two powers, anywhere in the world. They participated in the 1968 invasion of Czechoslovakia by capturing the Prague airport and arresting the Czech leadership. They also participated in the invasion of Afghanistan.²

Ground forces are the Soviet's instrument of decision. The Soviet commander has a wide range of deep strike and interdiction assets to assist the advance of his ground forces. When these assets are fully employed, the force opposing the Soviet Army is suddenly confronted with a major threat to its rear area.³ The Soviet threat to the rear area of a corps-sized NATO force is described in the following paragraphs:

Enemy Controlled Agents. Soviet UW operations are supported by agent networks in the target countries. Agents are scattered throughout the theater of operations, but are concentrated around key military, military-industrial, communications and transportation centers. They are recruited by the Soviet KGB or GRU and may be employed in a passive role as sleepers. Their primary missions include sabotage, subversion and interdiction of military operations.

Enemy Sympathizers. Enemy sympathizers are not part of an organized agent network; they operate independently, in small groups or as individuals. They are sympathetic to the enemy's cause and demonstrate their support of the enemy through acts of arson, assassination, sabotage and theft of military supplies and materials. Their activities are generally random and unpredictable, making them difficult to detect and neutralize.

Terrorists. Terrorists operate in organized groups or cells of varying size and capability. Terrorists employ force or the threat of force to achieve their objectives, normally overthrow of the legitimate government or economic structure. Their acts are typically criminal in nature, symbolic of their political cause and conducted in such a way as to instill fear among the local population. Terrorist activities may peak just prior to or at the onset of military hostilities.

Unconventional Forces. Soviet Spetsnaz may conduct diversionary and sabotage operations in the corps rear area. Spetsnaz are highly trained, special purpose units and are typically employed in 5-12 man teams. Spetsnaz can be inserted by air, land or sea, or they may infiltrate into the rear area on foot. Spetsnaz have special language, demolition, communications and foreign weapon skills, and may wear NATO uniforms or civilian clothing. Their primary mission is probably reconnaissance. However, they may attempt to penetrate military facilities, march columns and organizations to disrupt, destroy or mislead NATO forces.*

Reconnaissance Units. Soviet reconnaissance units may conduct operations to the depth of the corps rear area. Each Soviet motorized rifle and tank division has an organic reconnaissance battalion capable of operating 50 to 100 kilometers beyond its own FLOT. Specially

organized reconnaissance groups may penetrate further into the rear area to raid installations, conduct ambushes, locate enemy reserves and identify unit boundaries for exploitation by attacking forces.

Special/UW Forces. The Soviets may insert parachute or helicopter assault forces into the corps rear area to conduct target reconnaissance, collect intelligence, attack nuclear delivery means or disrupt C2 functions. These forces are generally company-sized or smaller and must link-up with friendly forces within a day or two.

Heliborne Forces. The Soviets may employ company or battalion-sized heliborne forces, normally motorized rifle troops, up to 50 kilometers beyond their own FLOT. Heliborne troops are inserted without their organic vehicles and operate within range of their supporting artillery. They may be inserted into the rear area to seize key terrain, attack C2 facilities or communications nodes, conduct raids and ambushes, or to lay (or clear) minefields. Soviet heliborne operations are difficult to anticipate and counter due to the speed with which they occur. The best way to counter heliborne forces is to intercept them enroute to their landing zones and assembly areas. This requires accurate and timely early warning.⁵

Airborne Forces.

Airborne units are the Soviet's elite forces. They are employed to project combat power deep into their enemy's rear area. The Soviets would probably insert a battalion or regiment-sized airborne force against operational or tactical objectives in the corps rear area. This force would require link-up with advancing Soviet forces in 1 to 3 days.

Soviet airborne forces are inserted with their armored vehicles, the BMD airborne infantry fighting vehicle and ASU 85 assault gun. Though lightly armored, these vehicles provide the airborne force with significant mobility and firepower. Airborne forces may be inserted into the corps rear area to seize key terrain, bridges, airfields or river crossing sites, or to destroy enemy CPs.

Ground Forces.

The Soviet concept of operations is based upon the expectation that future warfare will be highly mobile. In their view, the nature of the battlefield will require forces which can be concentrated quickly, move rapidly, remain protected from enemy fire and nuclear effects while moving, and create shock effect deep in enemy rear areas. Once in their enemy's operational rear, the Soviets will seek out and destroy reserve forces, and supply and C2 facilities.⁶ The Soviets conduct deliberate operations

to insert powerful ground forces into the enemy's rear area. Two such forces include the forward detachment and OMG (operational maneuver group).

The Soviet army commander could employ a tank-heavy, regiment-sized "operational" forward detachment to strike deep into the enemy's defensive area, before enemy defenses are fully organized and solidified. Forward detachments normally operate in advance of OMGs or breakthrough units to facilitate the rapid advance of forces into the enemy's rear, by securing key terrain, facilities or bridges. They are difficult to anticipate and quick action is required to preclude their attainment of their objective and the resulting disadvantageous impact upon the corps' operational tempo.⁷ The Soviets would probably accept heavy losses of deep penetration forces if they could cause a collapse of the enemy's defensive structure before he could resort to the use of nuclear forces.⁸

The OMG is a high-speed, tank-heavy operational exploitation force which is separate from the second echelon. At army level, the OMG might be as large as a reinforced division and could operate 100 kilometers or more beyond the army's forces. The OMG conducts operations deep in the enemy rear area as early in the offensive as possible. Its missions include the destruction of enemy nuclear weapons, C2 facilities, ADA sites and LOCs

(lines of communication), or the seizure of key terrain or airfields. The OMG might also assist advancing ground forces by seizing road junctions and bridgeheads.

Infiltration Forces. The Soviets employ infiltration tactics to insert dismounted forces into the enemy's rear area. Forces of battalion-size or larger might infiltrate the MBA (main battle area) and reassemble at key terrain in the enemy's rear area. It is questionable whether infiltration forces could achieve objectives to the depth of the corps rear area.

Supporting Forces. Soviet operations against the corps rear could be supported by:

-- attack helicopters, ground attack aircraft and fighter-bombers from the Soviet Air Force. Soviet air support would target enemy units, C2 facilities, reserves and logistic operations.

-- rocket and missile attacks to a depth of 900 kilometers. Rocket and missile attacks would target enemy nuclear delivery means, control systems, command posts, radar stations, reserves, and logistic support areas.

-- air, artillery and soldier emplaced mines. The Soviets employ mines deep to isolate enemy facilities, to deny avenues of approach and to restrict forward support.

-- REC (radio electronic combat) to disrupt and destroy C2 elements, radars, communications centers and nuclear delivery means.

-- NBC (nuclear, biological and chemical) attack. The Soviets have a formidable arsenal of offensive weapons with which to deliver both nuclear and chemical warheads against rear area installations and formations.⁹

OTHER ACTIVITIES AND CONDITIONS

Interdiction by enemy ground forces is the primary, but not the only, threat to continuity of operations in the corps rear area. The corps rear CP must be fully informed of other conditions, such as obstructed supply routes or chemically contaminated areas, which could disrupt vital support activities. These disruptions ultimately impact upon close operations and the outcome of battles.

The assembly and movement of reserves, redeployment of fire support, and sustainment activities can be impeded by congestion on supply routes or road damage caused by weather, vehicle traffic or enemy indirect fires. Conditions such as these are likely to be encountered first by users of the supply routes. These conditions must be quickly identified and reported to the corps rear CP so that traffic can be diverted to alternate routes and corrective actions initiated.

The corps rear CP is responsible for ADC (area damage control) in the corps rear. ADC consists of those measures taken before, during and after an enemy conventional, nuclear, biological or chemical attack; a major

accident; or a natural disaster. The objectives of ADC are to limit damage, seal off affected areas, save lives, salvage equipment and restore unit operational capability as quickly as possible.¹⁰ Clearly, ADC can only be effectively performed with timely and accurate information regarding traffickability and environmental conditions in the rear area.

Contamination in the corps rear must be quickly reported to the corps rear CP so that the area may be properly marked, NBC warning reports disseminated and soldiers properly protected if they must enter the contaminated area. Soldiers perform their duties less effectively when they are wearing chemical protective equipment. The degradation in their effectiveness may be as great as 50%. A 50% reduction in rear area support capability can collapse close operations. Soldiers performing vital rear support functions must know precisely when and where they must use their chemical protective clothing. They can not wear protective clothing all the time as a precautionary measure.

DOCTRINE FOR REAR OPERATIONS

US Army doctrine and force structure for rear operations have evolved considerably during the last five years. Our previous doctrine, as reflected in FM 90-14, Rear Battle, was focused upon security for CS and CSS units and functions in the rear area. Under this

doctrine, security was accomplished through coordinated efforts to detect, delay and destroy the enemy in the rear area. Our current doctrine expands the scope of rear operations to accommodate other functions vital to the sustainment effort in the rear area. Security is still a primary rear operations function. However, terrain management, sustainment operations, and movement planning and control are functions of equal importance.

The deputy corps commander is now responsible for corps rear operations. Responsibility for rear operations is no longer vested in the commander of the COSCOM (corps support command), who is now free to focus his efforts upon sustainment of corps close, deep and rear operations. The elevated level of responsibility for rear operations reflects an increased recognition of its impact upon the success of close and deep operations.

The forward deployed corps is now authorized four similarly configured RAOCs, rather than the single RAOC which was colocated with the CTOC (corps tactical operations center) under our previous doctrine. This increase in the number of RAOCs provides for more decentralized C2 of corps rear operations and increases flexibility of the rear operations structure in the event a RAOC is destroyed.

RAOCs are assigned areas of responsibility in the corps rear area. These areas may be, but are not

necessarily, aligned with those of support groups or MP battalions in the corps rear area. The RAOCs of forward deployed corps in Europe are presently RC (reserve component) units based in the United States. However, under a current staffing proposal at Department of the Army (HQDA), RAOCs will be manned with US Army Reserve officers residing in the FRG. Under this proposal, RAOCs could be activated much more quickly than would be possible by relying upon the time-phased deployment of reserve forces from the CONUS (continental United States).

The terminology of rear operations doctrine has also changed considerably in the past few years. The DCF (dedicated combat force) is now the TCF (tactical combat force); RAS (rear area security) is now rear security. The enemy threat to the rear area is now categorized by the level of response required to defeat it, rather than the actual composition of the threat force itself.

Corps Rear Command Post

The corps rear CP conducts rear operations. It is an austere facility, with minimal manning, and normally locates in close proximity to the COSCOM for life support, local security and ease of coordination. The corps rear CP provides liaison to adjacent corps and division CPs. It also conducts liaison with the ASG (area support group) responsible for security rearward of the corps rear boundary.

The deputy corps commander exercises his rear operations responsibilities through the corps rear CP. The staff of the corps rear CP conducts integrated planning and executes the primary rear operations functions. These functions include terrain management in the rear area; rear security operations; sustainment of close, deep and rear operations; and planning and control of movements within the rear area.

Rear security operations consist of those actions taken to secure rear forces, and neutralize or defeat the enemy in the rear area. Rear security operations have four components: intelligence, base and base cluster self-defense, response force operations and combined arms TCF operations. These components form the framework upon which rear security operations are based.¹¹ The other functions of rear operations - terrain management, sustainment, and movement planning and control - are integral parts of the overall rear security plan.¹²

The corps rear CP is organized into three functional cells: the HQ (headquarters) cell, the CSS cell and the OPS (operations) cell. The HQ cell provides guidance to the staff of the corps rear CP and analyzes the tactical situation (close and deep) for its impact upon current and future operations. The CSS cell collects, analyzes and provides CSS information for the sustainment of close, deep and rear operations. It also

plans and controls non-tactical movements in the corps rear area. The OPS cell is the "workhorse" of the rear CP. Its major functions include planning and control of rear security operations, to include the synchronization of combat, CS and CSS in support of rear security operations; terrain management in the corps rear area; control of movements in the corps rear; monitoring close and deep operations through communications with the corps tactical and main CPs; and completion and update of the rear IPB. The OPS cell is also responsible for collecting and disseminating early warning information regarding threat activities in the rear area.

Rear Area Operations Centers

Due to the vast expanse of a typical corps rear area, the corps rear CP executes rear operations through four subordinate RAOCs. RAOCs are assigned areas of responsibility by the corps rear CP and, like the corps rear CP, typically collocate with other headquarters capable of providing administrative and logistic support.

RAOCs provide centralized tactical planning and control over operations within their designated sector of responsibility. In many ways, RAOCs are the linchpins in corps rear operations.¹³ They are specifically responsible for the positioning of bases and base clusters (terrain management), ADC and the establishment of a tactical communications net for rear operations.

Bases and Base Clusters

RAOCs organize units within their geographic area of responsibility into bases (unit or multi-unit positions with definite perimeters) and base clusters (groupings of bases with shared mission and/or security requirements and lacking a clearly defined perimeter). Bases and base clusters fall under the OPCON (operational control) of the corps rear CP and its subordinate RAOCs for rear area security. However, normal mission guidance and prioritization remain the responsibility of unit parent commands.¹⁴

The base commander is normally the commander of the unit occupying the base. The base must plan for its own defense and establish a BDOC (base defense operations center), which operates from the TOC (tactical operations center) of the base commander. The base reports to the BCOC (base cluster operations center) if the base is integrated into a cluster. Separate bases report directly to their controlling RAOC.¹⁵

The base cluster is the next higher command and control headquarters of the base and is normally commanded by the senior unit commander in the cluster. The base cluster commander establishes the BCOC using his organic HQ element. Separate base and base cluster operations centers must maintain 24-hour communications with their respective RAOC for intelligence, as well as for tactical

information and direction.¹⁶ The base cluster reports directly to the controlling RAOC.

The OPS cell of the corps rear CP is explicitly responsible for gathering and disseminating early warning of enemy activities in the corps rear area, though it lacks an organic capability to gather such information. This responsibility is shared implicitly across echelons below that of the corps rear CP. Subordinate RAOCs must direct area security and the gathering of information within their respective areas of responsibility. Base and base cluster commanders prepare defense plans to aid them in detecting enemy activity beyond their perimeter and in the defense of their facilities. At the lowest level, each squad, crew, team and soldier is responsible for reporting observations of enemy activity directly to his chain of command.

Response to the Rear Area Threat

Rear operations planning is guided by three levels of response to threat activities. These levels are defined by the scope of response required to defeat the threat, rather than by the size or composition of the threat force itself.¹⁷ The three levels of response are Level I, Level II and Level III.

Level I. Level I threats can be defeated by base or base cluster self-defense measures. The threat opposed at Level I is typically comprised of enemy agents,

terrorists and sympathizers. This threat is likely to be highly active immediately prior to and at the beginning of hostilities, and will be difficult to assess because of its varied organization and capabilities, as well as the extensive efforts which these forces undertake to conceal their intentions.¹⁸ Unless intelligence provides I&W (indications and warnings) of potential targets, response forces will probably not respond in time to interdict the enemy force.¹⁹

Level II. Level II threats are beyond base or base cluster self-defense capabilities, but can be defeated by response forces, normally MP and supporting fires. The threat opposed at this level typically consists of enemy long-range reconnaissance teams, special-purpose forces (Spetsnaz and airborne forces with special missions) and troop reconnaissance groups. Level II activity may be difficult to detect in the corps rear area as these forces avoid engagements short of their mission objectives and move mainly at night.

Level III. The Level III response necessitates a command decision to commit the corps TCF. The threat opposed by the TCF would typically consist of enemy heliborne forces, airborne forces and forces with an OMG mission. Level III activities may occur simultaneously throughout the depth of the enemy's employment and upon objectives in his deep operations area (the enemy's rear

area). These forces seek and exploit weaknesses in the enemy's defense, and maneuver to specific objectives or to maximize disruption of the enemy's rear area.

ENDNOTES

1. U.S. Army, FM 34-1, Intelligence and Electronic Warfare Operations (1987): 11-1.
2. David L. Crocker, "Rear Battle at Corps Level: Are We Prepared?" (USAWC Military Studies Program Paper, USAWC, 1986): 6.
3. David L. Crocker, "Rear Battle at Corps Level: Are We Prepared?" (USAWC Military Studies Program Paper, USAWC, 1986): 1.
4. Headquarters United States Army Training and Doctrine Command, Soviet Threat to US Army Rear Area, Office of the Deputy Chief of Staff for Doctrine (6 June 1980): 9.
5. Crosbie E. Saint and Walter H. Yates, "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review, Vol. LXVIII (October 1988): 8.
6. Headquarters United States Army Training and Doctrine Command, Soviet Threat to US Army Rear Area, Office of the Deputy Chief of Staff for Doctrine (6 June 1980): 1.
7. Crosbie E. Saint and Walter H. Yates, "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review, Vol. LXVIII (October 1988): 5.
8. U.S. Army, FM 100-2-1, The Soviet Army: Operations and Tactics (1984): 4-8.
9. Headquarters United States Army Training and Doctrine Command, Soviet Threat to US Army Rear Area, Office of the Deputy Chief of Staff for Doctrine (6 June 1980): 12.
10. U.S. Army, FM 41-10, Civil Affairs Operations (1985): 2-14.
11. U.S. Army, FM 100-15, Corps Operations (1989): D-1.
12. U.S. Army, FM 90-23, Rear Security Operations: Army - Tactical Air Forces Procedures for Rear Security Operations at Echelons Above Corps (1989): vi.

13. Kenneth R. Pierce, Jr., "Command and Control of Corps Rear Operations," (USAWC Military Studies Program Paper, USAWC, 1986): 1.
14. U.S. Army, FM 100-15, Corps Operations (1989): D-0.
15. Stephen C. Becker, "RACO - A Definition of Responsibility," Student Study Project, United States Army Command and General Staff College, 1981): 25.
16. U.S. Army, FM 100-15, Corps Operations (1989): D-2.
17. U.S. Army, FM 100-15, Corps Operations (1989): 3-3.
18. John W. Ellis, "Preparing the CSS Base for Rear Battle," Army Logistician, PB 700-88-1 (January-February 1988): 31.
19. U.S. Army, FM 34-60, Counterintelligence (1985): 3-3.

CHAPTER IV

HISTORICAL PERSPECTIVE - WORLD WAR II

INTRODUCTION

The following historical analysis examines rear operations conducted by the German Army (Wehrmacht) on its Eastern Front during World War II. The rapid advance of German ground forces into Russia greatly extended the German's lines of communication and created vast rear areas which had to be secured from interdiction by enemy (Russian) forces. From July 1941 until June 1944, Russian partisan and military forces attempted to disrupt vital support activities of the Wehrmacht in its deep rear area.

The Wehrmacht needed a system which would allow it to monitor activities in its rear area and provide rear area forces with early warning of enemy attack. What is more, rear operations could not draw upon the resources of combat forces at the Front. Ultimately, the Wehrmacht was able to establish partial surveillance and control of its rear area through the implementation of innovative tactics and techniques; the creation of tailored security forces and a civil-military organization; the use of aerial surveillance; and the exploitation of friendly elements within the local population.

The geographic focus of this analysis is upon the deep rear area of German Army Group Center, from 1941 to

1944. This particular campaign was analyzed for two reasons. First, it is a fairly well documented military operation. Second, there are striking parallels between this campaign and any future mid to high-intensity conflict which might develop between NATO and Warsaw Pact forces on the continent of Europe.

Current Soviet military doctrine is based largely upon Soviet experiences during the "Great Patriotic War." It was during World War II that the Russians fully developed a grasp of the operational and strategic value of operations to the depth of the enemy's rear. The Russians unleashed the full spectrum of their conventional and unconventional warfare capabilities against the German's rear area support structure on the Eastern Front. Russian deep operations were closely synchronized with their execution of close operations at the Front, reflecting a similarity with Russian military doctrine of today.

Rear security operations practiced by of the Wehrmacht was similar in several regards to US rear operations doctrine of today. A major objective of German rear security operations was to free forward maneuver forces from rear security duties. The Wehrmacht established an extensive rear security organization which was more or less independent of their armies operating in the forward area.¹ The Germans emphasized the

importance of support base self-defense measures to conserve limited rear security assets, though these support troops were typically neither well trained nor well armed for this role. The first principle of German rear defense was "...self-defense, by every unit and by every man," at least until additional combat power could be brought to bear if needed.²

SETTING:

The Wehrmacht launched its massive offensive campaign into Russia during July of 1941. The German advance was abruptly halted short of Moscow during December by stiff Russian military resistance and the rigors of winter campaigning in the Soviet heartland. The Russians launched a counteroffensive against the Wehrmacht during December of 1941, but it stalled short of Smolensk due to equipment shortages and deterioration of the Russian C2 structure. German and Russian forces continued to fight a war of attrition on the Eastern Front until 1944.

The German Army Group Center faced some of the fiercest fighting of the war, with much of it taking place in the group's rear area. The German Army Groups North and South also experienced intense fighting at their respective fronts, but encountered considerably less partisan resistance in their rear areas, largely due to differences in terrain and regional political variations.

Conducting operations in the rear area of German Army Group Center was certainly made more difficult by the rugged terrain of the region and the hostility of the local population, which increased as German military forces grew weaker during the latter years of the campaign. The German rear area was vast and sparsely populated. Thick forests and swamps provided Russian partisan and military forces with ample shelter and concealment. Roads were few and muddy much of the time. The Russian rail network, which had been captured intact by the Germans, became the primary means of resupply for forces at the front. It also became the primary target of Russian partisan forces in the rear area.

Vital German rear support activities were increasingly vulnerable to interdiction by enemy forces as the rear area grew and lines of communication expanded. Available security forces were widely scattered and logistic support bases were increasingly distanced from the security of combat units.

THREAT:

The Eastern Front saw the Russians mount the greatest irregular resistance movement in the history of warfare, combining all of the classic elements of irregular warfare with modern communications, transportation and weapons.³ The threat to the rear area of German Army Group Center included Russian cavalry

and armor envelopments, tactical air strikes, airborne assaults and Russian partisan warfare activities. Russian agents were particularly active in the German's rear area, working to synchronize partisan activity with close operations at the front.

The Russians launched a major airborne operation into the German rear, in the vicinity of Vyazma, during the winter of 1942. The operational objective of IV Airborne Corps was to seize the Warsaw-Moscow highway and await linkup with Russian armored and cavalry forces. The operation was unsuccessful, primarily because the Russians lacked sufficient air transport to properly execute and sustain a corps-sized operation. However, this operation was also noteworthy from a rear operations perspective. Once the airborne force had been inserted into the German's rear area, the Wehrmacht effectively protected its vital support bases using available rear area support forces. Tenacity in the rear area allowed the Wehrmacht to concentrate its main effort on grinding the Russian counteroffensive to a halt and stabilizing the front line.⁴

Russian military units that had been overrun by the Wehrmacht during the summer offensive of 1941 posed a lingering threat to the German rear area. The bypassed Russian forces were generally well equipped and provided a vital link between Russian units operating in the German

rear area and the Russian government. Some of these units remained active until they could rejoin the front. Others were dismantled and their members integrated into partisan groups. Some individuals from these units operated independently as Russian agents, implementing terror tactics and employing propaganda to turn the Russian people against the occupation forces.

Soviet partisan forces operating behind German lines were typically well organized. The Soviet partisan movement was not merely a spontaneous reaction to the German invasion of Russia, it was a tightly controlled arm of the central party organization.⁵ Partisan military objectives were, to reduce German mobility and interdict German logistic support; to gather intelligence; and, to destroy or tie-down German manpower.⁶ The Russians succeeded in exploiting an enemy occupied area to the advantage of their own war effort while the Germans, ostensibly the occupying power, were frequently unable to implement effective countermeasures.⁷

The partisans employed harassing hit and run tactics and aggressively sabotaged vital rail lines, roads and bridges. They avoided decisive engagements with German soldiers whenever possible. Only as the Germans developed more effective tactics and procedures for locating and tracking down partisan forces, did partisan activity decrease in both frequency and effectiveness.

The Wehrmacht lacked sufficient trained personnel to operate the captured Russian railroad and communication systems. This shortage of skilled labor, combined with the German's tremendous reliance upon rail transport, forced them to employ a Russian labor force to maintain their lines of communication. As might have been anticipated, these workers were often able to sabotage even the most well defended rail systems.

GERMAN RESPONSE:

The Wehrmacht expected the invasion of Russia (Operation Barbarossa) to be brief. They initially discounted the need to develop comprehensive measures to monitor and protect their rear support activities. However, the critical importance and vulnerability of their vital sustainment activities in the rear area forced them to develop organizations and tactics with which to counter the growing partisan threat.

Organization.

The commander of German Army Group Center established a rear area command which was responsible for all security matters in the group's rear area, though the security structure was determined by the Chief of Administration and Supply. The newly created command's primary goal was to free front line units from the burden of having to execute rear security missions.

The Soviet defeat of the German Blitzkrieg (lightning war) strategy before the gates of Moscow promised a long and bloody war. The stiffening of Soviet resistance, coupled with a German policy of terror conducted against the Soviet people, contributed to an upsurge of partisan activity in the rear area of German Army Group Center. Because of the vastness of the Soviet area under their control, the German high command was compelled to form new army security organizations (security divisions) to meet the growing threat.⁸ Each army group normally had three such divisions.

Each security division consisted of a line infantry (alert) regiment, two reserve regiments, a motorized police battalion and an artillery battalion. The alert regiment was prone to be drawn forward in support of operations at the front, though this practice ceased somewhat as it became evident how critical the regiment was to security within the rear area.⁹ Security divisions were augmented by other forces when they were made available. Augmentation came from SS brigades, Hungarian brigades, native (Russian) units and line combat units. Rear security units were frequently supported by artillery and air forces for anti-guerrilla operations.

The security divisions were responsible for very large areas of operation. It was not unusual for a security division's sector to cover an area in excess of

5,000 square miles.¹⁰ The divisions were normally filled with World War I veterans and recalled officers, and were equipped with captured Russians weapons. The highest quality military personnel and equipment were generally sent directly to the front lines.

Army Group Center established a network of administrative headquarters (Kommandanturen) to provide C2 of the security forces. Headquarters were formed at division level (Oberfeldkommandanturen), regimental level (Feldkommandanturen) and at company level (Ortskommandanturen).¹¹ Security units were assigned to these headquarters based upon the size of the area to be controlled and the level of enemy activity in the particular area.

The Germans also formed civil-military district offices to maintain close liaison with the civilian population. An officer was placed in charge of each district. This officer was required to maintain personal contact with the people in his district, and to help restore the local economy (to the mutual benefit of the military forces and community). These district organizations had a soothing effect upon partisan activity during the early period of the campaign. For a while, it seemed the German forces were a welcome replacement for the harsh Stalinist system.

However, German occupation forces gradually implemented more rigid policies within the towns, and partisan

activity began to flourish. Hitler's misguided racial policies toward the slavic "untermenschen" (sub-humans) dictated the cruel measures which were eventually adopted by the military occupation forces and caused many Soviet citizens to exchange their hoes and plows for rifles. In short, cruelty fueled the growth of the local partisan movement.¹²

Active Measures.

German rear security forces launched aggressive action as often as possible against partisan and military units operating in their rear area. They hoped to reduce enemy activity in their rear area by keeping their adversaries on the run and, when possible, forcing them into decisive engagements. German rear security operations were guided by two fundamental principles: the need to maintain the combat capability of rear defense units, and the pursuit of aggressive action in the rear area.¹³

German rear security forces were organized into mobile "hunter-killer" teams to locate and neutralize bands of partisans in the forested areas and swamps. These company and platoon-sized detachments, called "Jagdkommandos," traveled light and were usually followed by company or battalion-sized mobile reserve forces which could quickly join the fight against enemy partisan or military forces.¹⁴

The Wehrmacht also developed "armored trains" to introduce additional firepower and mobility into the rear area. The trains consisted of flatcars upon which medium artillery, air defense guns and even tanks were loaded. These weapons could provide fire support while on the flatcars, or they could be unloaded to provide quick and mobile support to security forces. The "armored trains" were able to exploit the adequate rail network, while avoiding the pitfalls associated with road travel in the area. The trains also carried their own resupply of ammunition.¹⁵

German rear defense force commanders were able to exploit the local population in the defense of towns, and of logistic facilities within the towns. The Germans frequently employed native Russian units to help secure their static rear area facilities. They also developed an extensive intelligence network, fed by informants, to help keep track of partisan developments in and around urban areas.

Passive Measures.

The Germans lacked sufficient rear security forces to monitor and protect all of their rear facilities, and sustain aggressive, offensive action against enemy forces in their rear area. They implemented a number of passive (defensive) measures to maximize protection of their vital

rear area assets, while imposing a lesser demand upon military manpower (security forces).

The rear area command implemented a "block system" to monitor and protect railroad lines and supply routes in the rear area. The system consisted of successive guard posts, positioned at intervals to safeguard the forward movement of supplies from depot to depot. Mounted and dismounted combat patrols moved between the guard posts, reporting and responding to any incidents occurring during the patrol. The patrols spent considerable time looking for mines and bombs, and were quite effective in doing so.

German logistic support bases were concentrated in towns and villages to maximize their support and self-defense capabilities. Many of these villages developed into independent strongpoints which provided some mutual support against partisan attack. Each logistic base was required to prepare a detailed defense plan and employ all its support personnel in defense of the base or activity in the event of attack. The Germans often recruited native units in the area to supplement their defenses.

German logistic operations were constantly threatened by attack from Russian aircraft. The Germans mounted 20mm anti-aircraft guns of the German Air Force (Luftwaffe) on railcars as a defensive tactic. They also linked the aircraft warning service of units in the area to the railroad communications system to provide early

warning of air attack. Convoys moved quickly from block to block to minimize their exposure to attack or ambush. Unloaded supplies were kept underground to reduce the likelihood of their destruction from sabotage or air attack. Unloaded railcars were stored away from depots and terminals to minimize collateral damage in the event they were set on fire.

RESULTS:

Published material is inconsistent in its assessment of how effective the rear command structure and forces of German Army Group Center were in combatting the threat to the group's rear area. Those who argue against their effectiveness cite the high level of activity sustained by partisan forces during the middle and later years of the campaign. During August of 1943, Russian partisans conducted 1,392 raids, an average of 45 demolitions per day, against rail lines in the rear of German Army Group Center. During two nights in particular, the six to seven thousand miles of track in the area were cut in 8,422 locations, and 2,478 mines were laid. On the eve of the Belorussian campaign, partisans in the sector of Army Group Center conducted over 4,000 acts of sabotage in one night.¹⁸

However, it must be recognized that the security divisions, as resource intensive as they were, did prevent more frequent commitment of front line units to rear

security duties. The offensive tactics adopted by the security divisions helped the Germans to seize the initiative from Russian partisan and military forces operating in their rear area, and resulted in both fewer and less effective attacks against supply operations and facilities. Active patrolling by "Jagdkommandos" greatly expanded the Wehrmacht's control of its rear area and contributed to the sustainment of operations at the front. Historians do not attribute the failure of the Wehrmacht on its Eastern Front to Russian partisan activity in the German's deep rear area.

The German rear area command and rear area forces successfully implemented passive defensive measures to offset the shortage of security forces resulting from requirements to monitor and secure a vast rear area, and protect greatly dispersed support activities. The "block system" proved to be an effective means of monitoring and protecting extended supply lines in the rear area. Patrol activity between successive guard posts emplaced along rail lines and supply routes kept vital lines of communication open much of the time. In October of 1943, Army Group Center security forces located and disarmed over 66% of all the road mines in their sector.¹⁷

The German rear area command required logistic base commanders to develop and implement detailed defense plans which would minimize the need for security forces at fixed

sites. The command further required that all support personnel occupy their base's defensive perimeter in the event of attack. This precursor of our own rear operations doctrine of today was an effective means of defense. However, it is difficult to assess the impact which the presence of aggressive patrolling activity, with mobile support forces, might have had upon the willingness or ability of partisan forces to attack even lightly defended logistic bases.

The rear area command of German Army Group Center clearly benefitted from its early efforts to establish and maintain a favorable relationship with the civilian population. Partisan activity was greatly reduced during that period of the campaign when German military districts were in-place, and worked to promote local economic endeavors to the mutual benefit of military forces and the local population. The Wehrmacht was able to sustain its military forces with leather and iron products manufactured locally, without robbing the economy blind. However, harsh civil policies adopted by follow-on occupation forces, in response to Hitler's maniacal directives, were rigid and abusive. Partisan activity flourished as a result.

CONCLUSIONS:

The experience of the Wehrmacht in Russia during World War II demonstrates how vital and potentially

vulnerable the deep (corps) rear area is to enemy intervention. To the Wehrmacht, it was a second front, a theater of operations in its own right.¹⁸ The Germans relied upon improvised procedures, offensive tactics and large security forces to provide the level of surveillance and security which they required to protect their vital sustainment activities.

The combatants of World War II clearly lacked the sophisticated surveillance technologies which our Army of today possesses; they relied upon manpower and mobility to monitor activities in their rear areas. Ironically, manpower and mobility may still be the essential characteristics of any system implemented to gather information in a large rear area characterized by mixed terrain, urban sprawl, and friendly clutter. This would be particularly true in the rear area of a forward deployed corps, where technology-based surveillance assets would be weighted forward in support of close and deep operations.

The Germans found aircraft to be an invaluable asset for conducting surveillance of large areas where ground reconnaissance was not feasible. This is probably still the case in a forward deployed corps rear area today, where large areas may lie isolated at the periphery of unit boundaries and between prominent terrain features.

Aggressive, offensive patrolling may still be the best (possibly the only) way to effectively monitor and secure vital areas in the corps rear. The Wehrmacht discovered that passive defense, when employed alone and based upon scattered security strongpoints, is not adequate, no matter how well the defense is organized. Areas around vital support facilities, to include lesser used roadways, are extremely vulnerable to enemy interdiction and must be monitored continuously.

A dedicated security force is absolutely essential in the corps rear area, especially when vital rear support activities are threatened by small, mobile forces operating in terrain which does not permit defending forces to exploit superior firepower. Mobile response forces must be readily available to pursue the enemy. Small enemy forces may be very difficult to locate and track once they have completed an attack and returned to the security of terrain they are familiar with.¹⁹ On today's battlefield, this problem may be particularly acute in large urban areas where enemy forces may easily blend into the local environment.

Rear area commanders must have ready access to rear area security forces, as well as the authority to commit them in anti-guerrilla operations. These forces must include personnel that are familiar with the country and

its people. In Europe today, combined US-German forces offer distinct possibilities.

Even with dedicated security forces deployed in the rear area, it may be necessary to bring maneuver units into the rear area to defeat large enemy forces or to force decisive engagements with smaller ones. However, the commitment of front line maneuver units in response to guerrilla activity is rarely justified; it usually has no more than a temporary effect.²⁰

It is extremely difficult to monitor the pulse of activities in a vast rear area and protect vital facilities without support and assistance from the local population. Information and reports must be continuously solicited from the local inhabitants. The Wehrmacht was able to employ a limited number of native Russian units to help secure static facilities in the rear area. In general, the local population and their properties must be protected and respected, or much needed support and assistance will be reluctantly provided or withheld altogether.

Full exploitation of the local populace as an information resource demands that continuous and favorable contact be maintained with them. The Wehrmacht established a mechanism to accomplish this through its creation of military districts for the purpose of decentralizing and intensifying liaison with the local population. There may be some utility in our establishing a similar wartime

civil-military structure which can be implemented in the corps rear area, in a mature theater. There are already provisions made for the creation of civil-military structures in contingency theaters. Such an organization might greatly minimize information gathering redundancy and economize upon the use of limited surveillance assets in a corps' rear area.

ENDNOTES

1. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 5.
2. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 1.
3. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 6.
4. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 1.
5. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 14.
6. Bruce A. Alexander, "The Front Behind the Lines: The German Experience with Rear Area Security in Russia," Military Police Journal, Vol. 13, No. 3 (Fall 1986): 32-33.
7. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 5.
8. Charles E. Heller, "German Rear Area Protection, Eastern Front 1942-1944," Military Police Journal, PB 19-87-1 (Spring 1987): 26.
9. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 15.
10. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 5.
11. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 5.

12. Charles E. Heller, "German Rear Area Protection, Eastern Front 1942-1944," Military Police Journal, PB 19-87-1 (Spring 1987): 44.
13. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 15.
14. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 16.
15. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 18.
16. Charles E. Heller, "German Rear Area Protection, Eastern Front 1942-1944," Military Police Journal, PB 19-87-1 (Spring 1987): 27.
17. James L. Saunders, "Combat Power in the Rear: Balancing Economy of Force and Risk," (School of Advanced Military Studies Monograph, USACGSC, 1987): 19.
18. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 34.
19. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 35.
20. U.S. Army, DA Pamphlet No. 20-240, Historical Study - Rear Area Security in Russia: The Soviet Second Front Behind the German Lines (1951): 36.

CHAPTER V
CONTRIBUTORS TO "SYSTEMATIC WATCH"

GENERAL:

Combat, CS, CSS and host nation assets located within or transiting the corps rear can contribute to surveillance of the area. Some of these units and organizations have specific responsibilities for monitoring and reporting activity in the corps rear. However, most collect information incident to their performance of other activities in the rear area, and report it only as the opportunity to do so arises.

This chapter introduces the two types of information gatherers in the corps rear area, primary and opportunistic, and describes their information gathering and reporting responsibilities and capabilities. Primary gatherers of information are those military forces and host nation assets with specific information gathering and reporting responsibilities and capabilities, as established by their doctrine or through bilateral agreement.

The primary gatherers include:

- military police (to include the criminal investigation division)
- military intelligence (particularly the corp's counterintelligence assets)

-- host nation civil and military organizations (to include the local populace)

-- special operations forces (particularly civil affairs and psychological operations units)

Opportunistic gatherers of information are those Army and Air Force elements that collect information incident to the performance of their primary missions in the rear area or while transiting the rear area. For the most part, these elements do not provide direct support to rear operations. Opportunistic gatherers of information include the following:

-- ADA units

-- bases and base clusters

-- transportation units (including transiting convoys and corps movement control elements)

-- signal units (particularly communications nodes and sites)

-- engineer units

-- the United States Air Force (particularly transiting aircraft)

-- Army aviation units

-- FA (field artillery) units

-- other combat units (reserve and response forces)

PRIMARY GATHERERS:

MILITARY POLICE:

MP are the "eyes and ear" of the commander in the rear area. They are in fact the major US Army rear security organization by doctrine. Their organic transportation (gun jeeps or high-mobility multipurpose wheeled vehicles) and communications equipment (the AN/VRC and PRC series of radios) provide a unique capability to monitor and report activities throughout much of the corps rear area, for extended periods. The extensive and integrated communications of the (MP) brigade provide an effective means of C2 and surveillance within the corps rear. It also enhances the intelligence effort, the execution of MP missions in the corps rear area and the close cooperation that can be maintained with the civilian police and local population. MP have an intelligence gathering and reporting capability which is unmatched in the corps rear.¹

A forward deployed corps is normally assigned one MP brigade. The brigade usually provides general support to the corps and receives its guidance and taskings from the corps rear CP. The brigade provides a liaison cell to the corps MCC (movement control center) and corps rear CP, and positions its long-range planning section near the corps main CP.

The MP brigade HQ can provide C2 for three to six MP battalions. The specific number of battalions assigned

to the brigade depends upon the mission of the corps and the theater to which it is deployed. The brigade normally augments each division with a corps MP company. The remaining corps MP units are assigned sectors of responsibility within the corps rear area, and normally provide all types of MP support within their sector of responsibility, consistent with priorities established by the deputy corps commander.

MP missions in the rear area include BCC (battlefield circulation control), area security, EPW (enemy prisoner of war) operations, and law and order operations. The BCC and area security missions provide for the continuous gathering of information which may be of interest to the corps rear CP. However, MP also collect vital information during the execution of their other rear area missions.

Battlefield Circulation Control.

BCC is the primary battlefield mission of the MP. BCC is conducted to expedite the forward and lateral movement of combat resources; it helps the commander to get his people, supplies and equipment where he needs them, when he needs them.² The BCC mission is executed through the operation of TCPs, mobile patrols, and checkpoints and straggler collection points, principally along MSRs.

Traffic Control Posts. MP establish TCPs at critical points along supply routes. TCPs are an invaluable resource for the collection and dissemination of information within the corps rear area. TCP teams:

- conduct surveillance of friendly movements.
- watch for activity by guerrillas, enemy ground forces and aircraft.
- collect information from users of MSRs (MSR users can stop at TCPs to report suspected or actual enemy activity).
- monitor for radiological, chemical and biological contamination.

Mobile Patrols. MP mobile patrols normally operate within assigned areas of responsibility and conduct reconnaissance along assigned routes. Like TCPs, they are a valuable resource for the gathering and dissemination of information on movement routes. Mobile patrols:

- collect information about enemy activity from route users (military vehicle drivers and local nationals).
- watch, record and report road conditions.
- gather HUMINT from civilians and military forces operating in the area.

Checkpoints/Straggler Collection Points. MP establish checkpoints to screen vehicles and personnel using designated routes. Straggler collection points are

operated to collect and direct military personnel that have been separated from their commands. Stragglers are a valuable source of information pertaining to enemy activities and route conditions.

Area Security.

The MP perform area security missions to keep units in the rear from being surprised by the enemy. MP area security operations help the tactical commander to secure and protect his vital rear support activities by providing "eyes and ears" in critical areas not easily monitored by BCC or other surveillance assets. Area security missions are executed by security patrols and observation posts.

Security Patrols. MP conduct mounted and dismounted security patrols to keep the enemy from infiltrating undetected into a given area. Security patrols are conducted much like infantry combat patrols, with objectives and rally points established as control measures. Security patrols collect as much information as possible about their area of responsibility during the patrols.

Observation Posts. MP teams establish observation posts to detect enemy activity in a particular sector and warn friendly forces of enemy approach.

Criminal Investigation Division.

The primary wartime mission of the CID is to help keep the commander's critical wartime supplies from being destroyed or diverted through terrorist or criminal

activities. The CID conducts limited information gathering activities in the theater of operations to support development of its criminal and terrorist information network. CID also maintains close liaison with allied and host nation law enforcement agencies.

CID units belong to a separate command and report to the Commanding General of the USACIDC (United States Army Criminal Investigation Division Command). CID is not an organic element of the corps or MP brigade. However, they typically collocate with the MP for purposes of coordination and administrative support.

MILITARY INTELLIGENCE:

An MI brigade is normally assigned to provide INTEL (intelligence), CI (counterintelligence) and EW (electronic warfare) support to a forward deployed corps and its major subordinate units. Most of the brigade's surveillance assets are allocated in support of the divisions, separate brigades and ACR (armored cavalry regiment), where they can best support corps close and deep operations. However, the brigade does retain control of sufficient resources to support operations and monitor activities in the corps rear area. In addition to its employment of dedicated surveillance assets in the corps rear area, the brigade also updates the rear IPB, provides OPSEC (operations security) assistance to the corps, conducts target development in the rear area, and manages

the corp's intelligence collection and dissemination efforts.

An MI brigade typically consists of a headquarters detachment, an OP (operations) battalion, a TE (tactical exploitation) battalion and an AE (aerial exploitation) battalion. The brigade is authorized an additional TE battalion from the RC (reserve component) upon mobilization. The bulk of information collected by units of the MI brigade in the rear area is likely to be in the form of HUMINT gathered by the ground-based assets of the TE battalion. These units include the prisoner of war interrogation and document exploitation company, the CI platoon and perhaps even the long-range surveillance company.

The MI brigade's LRSUs (long-range surveillance units) would not normally be employed in support of rear operations. However, they can provide the rear operations commander with a specially trained and equipped, as well as highly reliable HUMINT collection capability. The trained observer augmented with modern sensor and communication systems is a reliable, flexible and valuable information-gathering asset.³ Other assets of the MI brigade can contribute to surveillance of the corps rear area as described below.

-- Enemy prisoner of war interrogation teams can collect HUMINT from enemy soldiers captured in the corps rear area.

-- CI teams employed in urban areas can collect HUMINT from local officials and the civilian population.

-- The AE battalion can employ its COMINT aircraft to intercept and locate enemy radio communications originating in the corps rear area. The AE battalion has six such aircraft.

-- The AE battalion can collect near-real time IMINT (imagery intelligence), day and night, using its SLAR (side-looking active radar), IR (infrared), and photographic equipment.

-- Aerial assets of the AE battalion can conduct in-flight intelligence collection and information reporting.

Counterintelligence.

The CI platoon, an asset of the TE battalion's prisoner of war interrogation and document exploitation company, warrants special examination as a primary gatherer of HUMINT for the corps in its rear area. The nine CI teams of the platoon can augment MI assets of the division, operate in general support of the corps or provide direct support to rear operations. CI teams operate in defined areas of responsibility and can:

-- conduct liaison with local police and intelligence agencies in the rear area.

-- maintain lists of people of INTEL or CI interest.

-- identify, locate and neutralize terrorists, UW teams and cells.

-- investigate known and suspected incidents of sabotage, subversion and espionage.

The effective exploitation of civilian sources of information in the corps rear area requires a sophisticated intelligence organization which is resident within the population. CI forces can work with the host nation government and military forces to build and maintain such an organization.⁴

HOST NATION SUPPORT:

Host nation assets are an invaluable source of information in the corps rear area. This is particularly so in a mature theater such as Western Europe, where formal support agreements and treaties exists between the host nation government and forward deployed forces. In the Federal Republic of Germany, host nation support is provided on the basis of negotiated bilateral agreements, such as the US-German Host Nation Support Agreement.⁵

Host nation contributors to surveillance of the corps rear area include federal agencies such as the GTA (German Territorial Army) and Feldjaegers (German military

police), state agencies such as the civilian police, local officials such as Burgermeisters (town mayors) and Forstmeisters (forest rangers), as well as the local population.

German Territorial Army.

An understanding of how the GTA can contribute to surveillance of the corps rear area requires some familiarization with its purpose and organization. The GTA is a component of the German regular army (HEER) and is responsible for defense of the FRG. The GTA is comprised of security, support and home defense forces consisting of various arms and services. The GTA is organizationally structured to interface with NATO forces and civil authorities at various levels.

The GTA operates under six Territorial Commands, each representing a geographic region within the FRG. The boundaries of the Territorial Army's areas of command only rarely coincide with those of the NATO forces; local cooperation must be regulated by orders.

Territorial Commands are further divided into Military Districts, or WBK (Wehrbereich). The WBK interface with NATO military forces at the corps level and civil authorities at the state level. Normally, the WBK sends a liaison team (with organic communications) to each NATO corps located within its region. This team may be located at the corps rear or main CP.

The WBK are divided into Military Regions, or VBK (Verteidigungsbezirk). The VBK normally interface with NATO military forces at the division level and civil authorities at the district level. Normally, the VBK sends a liaison team to each NATO division located within its region.

The VBK are further divided into Military Sub-Regions, or VKK (Verteidigungskreis). The VKK normally interface with NATO military forces at the brigade or regiment level, and with civil authorities at the county or city level. VKK forces conducting security missions in the rear area are an exceptionally valuable source of intelligence. All reports concerning regional security, including those from Allied forces, are provided to the responsible VKK (during both peacetime and war).⁶ Normally, the VKK sends a liaison team to each NATO maneuver brigade located within its region.

The GTA provides a greater level of support in the rear combat zone (the area to the rear of the corps rear boundary), than in the forward combat zone (the area forward of the corps rear boundary). This is because GTA forces normally remain under national command, and because NATO commanders in the forward combat zone are primarily responsible for their own rear operations, to include information gathering. The main tasks of the GTA in the forward combat zone are defined as "mediation" and

"special command, control and support." The "mediating" tasks involve representing the interests of NATO forces and forces under national command to the civil sector, as well as representing the interests of civil emergency planning agencies. In this role, the territorial command structure provides the necessary link between NATO commanders and host nation collectors of information in the corps rear area (civil police and local government). The "special command, control and support" tasks include the attachment of a German support force to each COSCOM, and information gathering activities in general.

Elements of the GTA can assist NATO forces in securing key areas and facilities in the corps rear area. Though GTA support of this nature would be unusual in the forward combat zone, it could be secured through special agreement between the government and NATO commanders.⁷ The GTA would secure vital areas in the corps rear area through the implementation of surveillance, security and defensive measures. Area protection might include the employment of security or home defense forces to secure vital civil facilities critical to military operations.⁸ The protection of facilities in the corps rear area would involve guarding, monitoring, securing, controlling and/or observing sites such as barracks, airfields, depots and civil structures of military importance.⁹

The incorporation of GTA forces into the corps rear area security plan is a responsibility of the corps rear CP. All coordination that can be conducted prior to hostilities will enhance the success of rear operations. Understanding how and where the GTA can provide support, as well as each host nation unit's capabilities, will improve security and surveillance coverage of the corps rear area.¹⁰

Feldjaeger.

The German military police, also called Feldjaegers, can assist in monitoring activities in the corps rear area. However, unlike our own MP, Feldjaegers are not specifically responsible for the gathering and reporting of information. Their primary functions include maintenance of law and order, military traffic control, and security. Their ability to coordinate with Allied armed forces military police, the Federal Border Guard, the judiciary, and other civil agencies and authorities on a routine basis provides yet another vital mechanism for enhancing surveillance of the corps rear area.

Civilian Police.

German civilian police agencies continue to exercise their police functions during time of war. Their ubiquitous presence in the corps rear area and sophisticated criminal intelligence network can provide US forces with current information regarding route traffickability

conditions and the local terrorist threat. The civilian police are also responsible for the control of civilian refugees (another valuable source of information) and for civilian traffic regulation in time of war.

Local Authorities.

Burgermeisters and Forstmeisters can provide US forces with intelligence indications and warnings, or even the actual locations of enemy personnel. They can report this information directly to NATO forces (through MP, MI or CA units operating in the area) or through the Territorial Army command structure. Even German speaking Spetsnaz might arouse the suspicion of local personnel who know each other by sight. This information can be gathered by military forces performing liaison activities within local communities. Forstmeisters may be able to discern unusual activities within "their" forests, which may be logical enemy rally points, cache sites, and offer threat forces concealment from US and Allied forces. Forstmeisters usually report such information to the local police or Burgermeister. If alerted by CI or Allied intelligence, these personnel can "focus" increased surveillance on such areas.¹¹

Local Population.

The local population is an invaluable source of information pertaining to enemy activities and other conditions of interest to the corps rear CP. MP, MI and

CA units must be continuously aware of this source and routinely collect HUMINT during the performance of their duties in the rear area.

SPECIAL OPERATIONS FORCES:

SOF include SF (special forces), rangers, SOA (special operations aviation), CA and PSYOP (psychological operations) units. SF, rangers and SOA forces are organized and trained to conduct unconventional operations and participate in conflicts at the lower end of the spectrum of warfare (low intensity conflict). In a Western European scenario, they would most likely be controlled at theater level and employed to perform strategic and operational missions independently or in general support of conventional military operations.¹² It is improbable that they would be committed in support of rear operations, particularly early in the war when they are at near full strength. However, CA and PSYOP units have a more conventional focus; they do support rear operations and can contribute significantly to surveillance of the corps rear area.

The unified or theater of war CINC (commander in chief) normally allocates the bulk of his assigned PSYOP and CA resources to the theater-army commander, who then assigns them to subordinate corps and other theater-army elements. A forward deployed corps would normally be supported by a CA brigade and a PSYOP battalion, though

the PSYOP battalion might be placed under OPCON (operational control) of the CA brigade commander.

A corps CA brigade is comprised of a HQ company and three to five CA battalions. A CA battalion would normally be attached to each division and the COSCOM. The COSCOM's CA battalion would probably support operations in the corps rear. Corps CA operations are conducted under the staff supervision of the G5, who is represented in the CSS cell of the corps rear CP.

CA personnel are generally organized into liaison teams and provide a vital link between local authorities and military forces. The number of teams available to the corps, as well as their configuration, would depend upon the mission and objective of the supported force.

CA liaison teams continuously collect and process intelligence. They maintain a close relationship with the local population and are often able to identify local civilian sources for information about enemy order of battle and other activities in the rear area.¹³ The sources of information which CA liaison teams seek to exploit include civilian authorities and government agencies; dislocated civilians; commercial and private organizations; third country organizations and agencies; and private citizens.

The corps PSYOP battalion is comprised of a HQ company, three to five tactical PSYOP companies and an

operational support company. Each division, separate brigade and the ACR would normally be supported by a tactical PSYOP company. The operational support company normally conducts tactical PSYOP and counterpropaganda operations in general support of the corps.

PSYOP units are organized into twenty-seven different types of cellular teams. The number and type of teams available for use in the rear area would depend upon the supported unit's theater of operations and mission. At least 8 of these type teams conduct reconnaissance and surveillance in support of propaganda development.

PSYOP teams collect information through their close contact with friendly and hostile persons. Much of their effort is directed toward encouraging the local population to report information on enemy activities. Information collected by the teams is processed through PSYOP channels to the corps G2, who in turn feeds appropriate information into the MI intelligence network.

OPPORTUNISTIC GATHERERS:

AIR DEFENSE ARTILLERY:

ADA units are typically deployed throughout the depth of the corps rear area and displace frequently to enhance their survivability. Their tactical dispersion and frequent movements provide ADA units with numerous opportunities to observe enemy activity and other conditions of interest in otherwise isolated areas. ADA

headquarters at all levels have a significant organic communications capability which allows them to report information of interest to the corps rear CP, though they do not report directly to a RAOC or the corps rear CP.

Prior to displacement, ADA units conduct an in-depth reconnaissance of their new positions to determine the suitability of terrain for the mission. Once in position, ADA units provide their own local security, to include LPs (listening posts) and OPs (observation posts), to the extent which their resources will allow. Because ADA fire units assume positions on or near elevated terrain and are well concealed, they can collect an abundance of information pertaining to enemy and friendly activity in the area.

A forward deployed corps is normally assigned an ADA brigade in support. An ADA brigade in Europe consists of a Hawk battalion, a Chaparral battalion and two Gun/Stinger battalions. Theater-level air defense assets, Patriot or Hawk, could augment the ADA brigade in the corps rear area.

Patriot is normally employed in defensive belts throughout the corps rear. Patriot fire units are positioned to protect vital rear area functions and assets while exacting the maximum possible attrition of threat aircraft entering the corp's airspace. The Patriot battalion has organic radar for detection and early

warning of approaching aircraft. Early warning can then be passed to the ADA representative at the corps rear CP (OPS cell) and subsequently disseminated to subordinate RAOCs using the rear operations communications net.

Corps chaparral could be employed in the corps rear area or as far forward as the maneuver brigades. Chaparral is a highly mobile system; individual fire units can relocate frequently and quickly. The corp's Gun/Stinger battalions would most likely augment each forward division's organic ADA units, though some Stinger would be retained in the corps rear area to protect assets not covered by the fires of chaparral. ADA would not be held in reserve in the corps rear area.

ADA information reporting channels in the corps rear area vary depending upon the particular support relationship existing between the ADA and supported (or reinforced) unit. ADA units in general support establish communications as directed by the commander assigning the support relationship. Reinforcing ADA units establish communications with reinforced ADA units. General support-reinforcing ADA units establish communications along the lines of both general support and reinforcing units. ADA units in direct support establish communications directly with the supported unit. The integration of ADA into a "systematic watch" system in the corps rear area would clearly require some modification of

doctrine to provide a more responsive communications link between the corps rear CP and ADA units located in the corps rear area.

BASES AND BASE CLUSTERS:

Bases and base clusters are dispersed throughout the corps rear area. This dispersion, in addition to enhancing base survivability, provides opportunities for CS and CSS units to gather information throughout the more active areas of the corps rear. However, it should be noted that CS and CSS units occupying bases and base clusters have a very limited organic surveillance and communications capability.

Base and base cluster commanders are responsible for their own security, to include the area immediately adjacent to their units. They must have access to current information regarding enemy activities and intentions in the corps rear area in order to maximize their advantages in defense. Base and base cluster commanders can position outposts and employ mobile patrols, within the limit of their resources, to provide early warning of threat attack. These measures also provide an additional source of information pertaining to conditions in the surrounding area.

Base and base cluster commanders can maximize their defenses and information gathering capabilities through preparation of detailed base defense plans and

coordination of those plans with adjacent bases, as well as with MP response and host nation forces. Coordinated defense plans can minimize the impact of enemy attack, maximize mutual support between adjacent bases and help prevent fratricide.¹⁴

CSS units can develop their own intelligence gathering network as they move from base to base in execution of their daily missions. This intelligence collection potential can be fully exploited by routinely debriefing all outposts, drivers and convoy commanders, and by focusing responsibility for intelligence gathering on a specific person or section. Ideally, this would be the S2 or S3. However, CSS bases are often composites of a variety of units and do not have an S2 or S3. The base commander must then designate someone to perform this mission. Sharing intelligence with adjacent units and the RAOC is imperative to success in the rear area.¹⁵

Base and base cluster commanders invariably gather information about enemy activities and capabilities in the rear area during incidents of attack upon a base or its defenses. Even isolated incidents of sabotage or sniper fire may provide the corps rear CP with vital information regarding enemy intent on a broader scale.

TRANSPORTATION ASSETS:

Users of MSRs in the corps rear may observe or encounter enemy activity or other conditions which inhibit

rear area operations. Because they are mobile, they may be unable to report this information to their chain of command or to a RAOC in a timely manner. However, MP or corps movement control personnel may be present and able to collect this information at designated points, normally TCPs, along the route.

The COSCOM MCC (movement control center) provides centralized movement management and highway regulation in the corps rear area. In this role, the COSCOM MCC, along with its subordinate elements, can contribute to surveillance of the corps rear area. The MCC is normally located near the COSCOM HQ, and maintains a small coordination element at the corps main CP. The corps ACofS for transportation typically provides staff supervision over the COSCOM MCC.¹⁸

The MCC maintains liaison with the transportation elements of other U.S. forces, as well as with allied and host nation transportation organizations operating in the corps rear area. All transportation movements into or from the corps rear are coordinated between the MCC and the adjacent corps' MCC, division MCO (movement control officer) or TAMCA (theater army movement control agency), as appropriate. The two major components of the COSCOM MCC are its HTD (highway traffic division) and operations division.

The HTD performs the highway regulation function for the corps in its rear area. The HTD is responsible for planning, routing and scheduling movements on the available road network, according to priorities established by the corps commander.¹⁷ The HTD relies heavily upon information from engineer route reconnaissance overlays and supporting MP units.

The HTD exercises its highway regulation function through its HRPTs (highway regulation point teams). HRPTs are positioned at critical locations on the corps road network to carry out the corps traffic regulation plan. They monitor and report the progress of convoys and MSR conditions to the HTD. They can also relay instructions from HTD to convoy commanders concerning route conditions, halts or the necessary diversion of convoy elements to alternate routes. HRPTs may be employed in a liaison role when the host nation is the responsible highway regulating agency.

The operations division of the MCC monitors and controls the movement of personnel and equipment along lines of communication. The division employs MCTs (movement control teams) to monitor material moving through the transportation network and maintains communication with host nation movement control agencies. MCTs are planning and coordinating elements; they do not physically monitor activity on movement routes. Though it

is unlikely that they would gather much information firsthand in the corps rear area, they do have organic communications equipment with which to report information collected and reported to them by HRPTs or other users of MSRs.

SIGNAL UNITS:

A forward deployed corps receives its communications support from a signal brigade consisting of three or more area signal battalions and a support signal battalion. The signal brigade establishes and maintains an extensive communications network which services most of the corps rear area, and greatly contributes to information gathering and reporting in the corps rear. This network is commonly referred to as MSE (mobile subscriber equipment).

Under MSE, the area signal companies of each signal battalion operate node center switching sites (2 per company) with remote extension switching facilities. The node centers and switching facilities are well dispersed and are interconnected by LOS (line-of-sight) radio to form a grid-like multichannel communications system which can be accessed by wire subscribers and radio access units throughout the corps rear area.¹⁸

Signal battalions contribute to "systematic watch" of the corps rear area in several ways. Communication node sites are themselves potential information gathering

assets. Their geographic dispersion, employment at or near dominant terrain features and frequent displacement throughout the rear area increase the likelihood of their encountering or observing activities and conditions of interest to the corps rear CP. The nodes are certainly able to communicate this information to a RAOC or the corps rear CP.

Signal battalions also help incorporate HNS communication networks into bases and base clusters, and coordinate with RAOC communications sections to supply the necessary area communications interface. Finally, signal units provide MI assets within the corps rear area with reliable communications to perform their primary mission of combat information and intelligence collection, and dissemination.¹⁹

ENGINEER UNITS:

A forward deployed corps is normally assigned an engineer brigade in support. Elements of the brigade, normally one or two engineer combat battalions and an engineer combat support equipment company, can directly support operations in the corps rear area. Engineer operations in the corps rear routinely expose engineer units to enemy activity and traffickability conditions which impact upon the capability of the corps rear CP to exercise its rear operations functions.

Engineer units in the corps rear may be tasked to keep lines of communication, primarily supply routes, traffickable. This mission, usually defined as ADC (area damage control), requires the continuous repair of damage to roadways caused by enemy action, heavy traffic and weather. Engineers also conduct route reconnaissance to assess traffickability conditions in the corps rear area and are responsible for preparing route reconnaissance overlays for use by corps movement planners.

Engineers use operational and technical channels to communicate. They communicate through operational channels for matters pertaining to current and future missions and to coordinate with their supported unit. Like ADA units, engineers establish operational communications channels based upon their particular command and support relationships. Engineers employ technical channels to communicate with their parent unit, for engineer specific (technical) direction, and as an alternate means of passing operational information which is not time sensitive.²⁰

UNITED STATES AIR FORCE:

It is unlikely that USAF ground attack or reconnaissance aircraft sorties would be allocated to support operations in the corps rear area. Their employment priority would clearly lie in supporting the close and deep operation areas of the battlefield. At

best, CAS (close air support) and TAR (tactical air reconnaissance) sorties might be allocated to the corps TCF in the event it were committed to operations in the corps rear.

However, it is possible that tactical fighter and airlift aircraft transiting the corps rear area could observe and provide in-flight reports on enemy activity and general mobility conditions of interest to the corps rear CP. Aerial reconnaissance and photographic support might also be provided on return missions from the forward area. The problems associated with employing fixed-wing aircraft in this support role are related to limitations of the aircraft, stringent airspace control requirements, as well as the difficulty in maintaining a real-time communications link between the OPS cell of the corps rear CP and overflying aircraft.

The speed and altitude at which fixed-wing aircraft fly may hamper surveillance of the corps rear area, particularly surveillance at the level of detail required by the corps rear CP. Use of these aircraft may be further constrained by airspace control measures implemented to protect friendly aircraft from fratricide. The Air Force's AC-130 Spectre gunship would appear to provide a unique capability for conducting surveillance of the corps rear area. The AC-130 is capable of performing precision fire support, escort, surveillance and

reconnaissance missions during day or night. It is armed with 2 X 40mm cannon (or 2 X 20mm Vulcan), as well as with 2 X 7.62 mini-guns. The AC-130 is also equipped with an impressive array of sensors and target acquisition systems, to include FLIR (forward-looking infrared) and low-light-level television.²¹

A lack of direct communications interface between the corps rear CP and the Air Force's TACS (tactical air control system) could complicate the employment of fixed-wing aircraft in a surveillance role in the corps rear area, particularly in response to short-notice (unplanned) requirements.²² However, indirect communications interface can be established through the TACP (tactical air control party) TALO (tactical airlift liaison officer), located at the CSS cell of the corps rear CP. The corps rear CP can also communicate with a TACP liaison officer at the corps main CP, using the A2C2 (army airspace command and control) system. In either case, it is evident that the employment of USAF aircraft to conduct surveillance of the corps rear area requires pre-planning and may not be responsive to shortnotice requirements.²³

ARMY AVIATION:

A forward deployed corps is supported by an aviation brigade. The brigade normally consists of two attack helicopter regiments (three attack helicopter battalions each), one aviation group (two assault

helicopter battalions, one medium helicopter battalion and one command aviation helicopter battalion) and one air reconnaissance squadron (when the corps does not have an ACR). The command aviation helicopter battalion provides C3 (command, control and communications) support to the corps, as well as target acquisition and aerial reconnaissance aircraft in general support of the corps and in direct support of the corps artillery.²⁴

The potential contribution of Army aviation to corps rear operations, to include area surveillance, is tremendous. Its capability to command, control and communicate; to acquire and engage targets day and night; to integrate supporting fires with both conventional and laser-guided munitions; to air assault the combat elements of an SIB (separate infantry brigade); and to respond in a matter of minutes to any part of the corps rear area, provides the aviation brigade with potential to dominate rear operations.²⁵

As reflected in our current doctrine, the most likely employment of Army aviation in the corps rear area is as a combat force. The aviation brigade, or a subordinate attack helicopter regiment, may be assigned the mission to conduct TCF operations, or it may be placed under the operational control of another unit that has been designated as the corps TCF.²⁶

Army aviation also has a potential surveillance role in the corps rear area. Because helicopters can maneuver quickly over vast areas, they can be employed to periodically monitor isolated areas where the permanent employment of ground-based surveillance assets may not be feasible. They may also be used as an aerial communications platform, and to verify unconfirmed reports of enemy activity or damage to supply routes in the corps rear area.

Army aviation is a premium asset of the corps. As such, it is unlikely that helicopters would be dedicated to surveillance of the corps rear area unless enemy activity or unusual conditions threatened vital rear activities on a grand scale. However, with planning and coordination, helicopters can conduct in-flight surveillance of designated areas on their return from other missions.

The corps rear CP has no A2C2 element, though there are A2C2 elements at the corps main and TAC CPs, and normally with the corps TCF. The absence of an A2C2 element at the corps rear CP could complicate coordination for short-notice employment of aviation assets in a surveillance role in the corps rear area. According to FM 100-103, Army Airspace Command and Control in the Combat Zone, all rear CP aviation requirements are to be handled by the A2C2 element at the corps main CP. The A2C2

element at the corps main CP maintains a secure communications link with both the TAC and corps rear CPs.²⁷

FIELD ARTILLERY:

Like ADA, FA units move frequently to enhance their survivability and occupy positions which provide for the most effective and responsive supporting fires. Frequent displacement provides FA units with unique opportunities to observe conditions and activities of interest to the corps rear CP. An FSE (fire support element) at the corps rear CP provides a direct communications link for the passage of vital information from FA units in the corps rear area.

A forward deployed corps is normally assigned an FA brigade in support. This brigade contains all of the FA cannon, guided missiles and rocket battalions that are not otherwise organic to the divisions, ACR or separate brigades. The FA brigade also has organic target acquisition units, with UAVs (unmanned aerial vehicles). However, target acquisition units are usually positioned forward in the division areas and are not likely contributors to surveillance of the corps rear. Most battalions of the corps FA brigade are allocated to augment the fires of committed maneuver units, though some may be kept in general support of the corps or provide direct support to the corps TCF for rear operations.

COMBAT UNITS:

Combat units located within the corps rear area can assist in monitoring activities and conditions of interests to the corps rear CP. These forces include the corps reserve (normally a separate brigade or division), the corps TCF (normally a maneuver battalion) and units undergoing reconstitution. It is also conceivable that the corps ACR might be employed to secure or monitor all or a portion of the corps rear area.

Combat units as large as these typically have organic surveillance assets with which to monitor activities within and beyond the perimeter of their assembly area. Organic surveillance assets could include ground surveillance radars, aviation, and scouts or LRSUs. In any event, the contribution of these units to surveillance of the corps rear area can be amplified by positioning the units in areas where their presence as a information gathering asset can be best exploited.

The scout platoon organic to maneuver battalions, as well as the long-range surveillance assets organic to divisions and corps, are trained and organized to conduct surveillance and reconnaissance operations in remote areas, areas such as those which might be found between base clusters in the corps rear area. A method which may be effectively employed to locate and monitor enemy activity in the corps rear area may be to divide available

reconnaissance and surveillance assets into teams of three or four men. These teams can then be inserted into remote areas to provide surveillance coverage where it is most needed. This method increases the chances of discovering dispersed threat elements before they can mass and organize for an attack against a CS or CSS unit.²⁸

ENDNOTES

1. David L. Crocker, "Rear Battle at Corps Level: Are We Prepared?" (USAWC Military Studies Program Paper, USAWC, 1986): 12.
2. U.S. Army, FM 19-1, Military Police Support for AirLand Battle (1988): 3-2.
3. U.S. Army FM 90-8, Counterguerrilla Operations (1986): 6-6.
4. U.S. Army FM 90-8, Counterguerrilla Operations (1986): H-3.
5. U.S. Army, FM 19-1, Military Police Support for AirLand Battle (1988): 12-1.
6. U.S. Army, FM 90-14, Rear Battle (1985): A-12.
7. U.S. Army, FM 90-14, Rear Battle (1985): A-10.
8. U.S. Army, FM 90-14, Rear Battle (1985): A-11.
9. U.S. Army, FM 90-14, Rear Battle (1985): A-11.
10. U.S. Army, FM 90-14, Rear Battle (1985): A-11.
11. U.S. Army, FM 34-60, Counterintelligence (1985): 3-9.
12. U.S. Army, FM 100-15, Corps Operations (1989): 3-20.
13. U.S. Army, FM 41-10, Civil Affairs Operations (1985): 2-14.
14. U.S. Army, FM 100-15, Corps Operations (1989): D-1 & D-2.
15. Jo B. Rusin, "Soviet Threat to CSS Forces: A Training Challenge," (Student Research Report, Air War College, Air University, 1988): 30.
16. U.S. Army, FM 55-10, Movement Control in a Theater of Operations (1986): 1-5.
17. U.S. Army, FM 55-10, Movement Control in a Theater of Operations (1986): 6-3.
18. U.S. Army, FM 24-1, Combat Communications (1985): 3-33.

19. U.S. Army, FM 24-1, Combat Communications (1985):
1-6.
20. U.S. Army, FM 5-100, Engineer Combat Operations (1988): 34.
21. Command and General Staff College, ST 100-2, U.S. Air Force Basic Data (1989): B-5.
22. U.S. Army, FM 100-15, Corps Operations (1989): F-4.
23. U.S. Army, FM 100-103, Army Airspace Command and Control in the Combat Zone (1987): 4-8.
24. U.S. Army, FM 100-15, Corps Operations (1989): 3-7.
25. Crosbie E. Saint and Walter H. Yates, "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review, Vol. LXVIII (October 1988): 5.
26. Crosbie E. Saint and Walter H. Yates, "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review, Vol. LXVIII (October 1988): 9.
27. U.S. Army, FM 100-103, Army Airspace Command and Control in the Combat Zone (1987): 4-8.
28. U.S. Army FM 90-8, Counterguerrilla Operations (1986):
6-2.

CHAPTER VI

CONCLUSIONS AND FINDINGS

DYNAMICS OF THE CORPS REAR AREA

The rear area of a typical forward deployed corps in the Federal Republic of German (FRG) is vast, with scattered population centers of varying size, mixed terrain, and a mature road and rail network. Though these characteristics generally favor rear operations conducted by the corps, they may degrade the efficiency and effectiveness of rear area information gathering and reporting activities.

Interspersed between the many large cities in a typical corps rear area are smaller towns and hamlets, each with its own political infrastructure and potential interface with the corp's rear area intelligence network. These smaller urban areas are typically surrounded by forests or farmland, and are joined by secondary roads and farm trails, many of which offer only limited and seasonal use to military vehicular traffic.

The mixed terrain of the FRG offers an abundance of key terrain features, most of which favor the defender. Rivers, urban sprawl, dense forests and mountain ranges help define unit boundaries and conceal combat service support activities in the corps rear. However, these same features can impede the movement of support and combat

units, and create isolated areas where enemy forces may assemble undetected and launch operations against corps support units. Mountainous terrain also offers the enemy air avenues of approach for the insertion of heliborne and airborne forces with objectives in the corps rear area. Key terrain itself may be of tactical or operational significance to the enemy; as such, it comprises potential enemy objectives which must be maintained under surveillance or defended.

Local government is an important element within most German cities and towns. The Burgermeister and Forstmeister are influential officials; the police are highly respected. Because there are a great many small population centers in a typical corps rear area, US military presence within them may be limited to periodic visits by CA and CI liaison teams, as well as MP patrols. In light of this, the local government and populace assume a critical role as gatherers of information pertaining to enemy activity within and around these towns. In fact, local civilian resources may be the only assets available to continuously monitor and report activities in many of the smaller towns and surrounding areas.

The corps rear area is a busy place in terms of military support activity, though much of this activity is concentrated within designated support areas. CS and CSS units operating within the corps rear are typically

organized into bases for self defense, and are further organized into base clusters for command and control purposes. Bases within a cluster are normally interconnected by secondary roads and trails, many of which are used extensively. Base and base cluster CPs share access to a common communications network, the MSE communications system, but share little else in the way of organic surveillance or defensive capability.

Areas lying outside of base defensive perimeters are typically less active in terms of military support activity, though there are still a great many units operating in the corps rear area which are not actually integrated into a base. Examples of such units include ADA and FA fire units, signal nodes and corps HRPTs. Enemy activity in the vicinity of a base or base cluster can be as disruptive to the corps sustainment effort as direct attacks against a base.

Bases and base clusters are typically located in or near urban areas to maximize available cover and concealment, and to exploit the capabilities of existing rail, road and communications systems. However, urban areas may also be a focal point for activity by enemy agents, saboteurs and sympathizers. Surveillance radars and overflying aircraft may be completely ineffective as information gathering tools in these areas. It is likely that large urban areas would absorb much of the corps'

HUMINT capability, particularly its CA and CI liaison teams, as well as mounted and dismounted MP patrols. Effective use of host nation information gathering assets are thus of paramount importance in large urban areas.

The corps rear area is crisscrossed by major and secondary roadways which are identified for military use as lateral and forward supply routes. These routes are the true lifelines of rear operations. MSRs are in constant use by support units to move supplies, and by tactical units to reposition combat forces. They may also be used by the local population for evacuation purposes, subject to host nation and military controls. Because of their critical nature, MSRs are very closely monitored in the corps rear. MP patrol them, HRPTs monitor logistic movement upon them, and engineers maintain the traffickability of them (area damage control). However, areas adjacent to MSRs, particularly key terrain, are equally important to maintaining freedom of movement upon them. These areas must also be monitored or defended. This is currently a mission of the military police, though at the likely expense of area security activities elsewhere.

DOCTRINE

Current US Army rear operations doctrine does not provide for, nor does it define, a thorough and reliable system which the deputy corps commander can use to gauge and monitor enemy activities and other conditions in the

corps rear area. Our doctrine does recognize the existence of both actual and potential information gatherers in a typical corps rear area, however, it fails to identify their responsibilities or common procedures for information gathering; nor does it provide a systematic method for directing information to the corps rear CP.

US Army doctrinal manuals generally fail to address responsibilities and procedures for the gathering and reporting of information by specific type units transiting or located within the corps rear area. There are two notable exceptions. The operations cell of the corps rear CP is clearly responsible for gathering and disseminating early warning of enemy activity in the corps rear area, i.e., air attacks and NBC activities; and reporting responsibilities of support units to bases, of bases to base clusters, and of base clusters to respective RAOCs, are fairly well defined.¹

Though the corps rear CP is doctrinally responsible for gathering and disseminating information in the corps rear area, it lacks an organic capability to do so. Our doctrine fails to define the mechanism(s) by which the corps rear CP is to gather information in a timely manner. Doctrine assumes this information is gathered from units in the corps rear area and reported to the corps rear CP, yet most of these units have no doctrinal responsibility, or defined procedures, for collecting information and

reporting it to the corps rear CP. A number of organizations and units typically located within or transiting the corps rear area are not integrated into the defenses of a base or base cluster; they have no direct link to a RAOC or the corps rear CP. ADA and FA firing units, corps MCTs, transiting units and host nation forces are a few examples.

The absence of defined information gathering responsibilities in our doctrine creates redundancy in information gathering. For example, MP, CI and CA teams may all collect information in the same host nation community without the benefit of mutual coordination. What is more, they may report this information through different channels.

The lack of a fully coordinated information gathering system in the corps rear area creates gaps in surveillance coverage and is inefficient, particularly in regard to interface with host nation assets. Under our current doctrine, numerous military units in the corps rear area routinely interface with civilian and military host nation assets. What is more, there is no central manager of information collected as a result of these exchanges. Yet, the success of rear operations depends upon the binding together of the diverse host nation and US resources. There must be one responsible commander at a given time, in a given area.²

Organizations which typically gather information in the corps rear report this information through different channels and to different headquarters. For example, corps HRPTs report information pertaining to movements and conditions on supply routes in the corps rear area to the MCC, which is located in the vicinity of the COSCOM. Similarly, CI teams report information pertaining to enemy activity in the corps rear area through the MI brigade, to the G2 at the corps main CP.

Much of this information is sequentially processed, at the expense of its timeliness and accuracy. By the time critical information is received at the corps rear CP, if it is received there at all, it may have been subjected to multiple screenings and review. The absence of a standard, information reporting system in the corps rear increases the likelihood of information distortion as it is sequentially processed through a myriad of CPs and HQs.

RAOCs offer a unique opportunity for coordination of information gathering activities in the corps rear area, though they lack an organic capability to gather information directly. Unfortunately, their specific responsibilities for information gathering in the corps rear area are also ill-defined. In fact, there is considerable ongoing debate regarding how RAOCs should be deployed in the corps rear area, recognizing that their

organization in the corps rear certainly impacts upon their capability to orchestrate information gathering activities within their area of responsibility.

There are a number of arguments for aligning corps RAOCs with MP battalions, not the least of which is the fact that MP are the "eyes and ears" of the deputy corps commander in the corps rear. Kenneth Pierce, in his paper titled "Command and Control of Corps Rear Operations" states that the objectives of rear operations would be greatly enhanced by consolidating RAOCs with the MP command.³ However, Michael Goodwin, in his Military Police Journal article titled "Update: Evolution of Rear Operations Doctrine" argues the opposite position. He states that MP forces are austere and must be highly mobile. MP battalion areas of operation fluctuate constantly; thus, MP must be free to move about the battlefield in response to rapidly changing threat situations. From a practical perspective, MP battalion areas of responsibility must be tied to parameters other than those used to establish RAOC boundaries.⁴

FORCE STRUCTURE

The deputy corps commander lacks sufficient resources to simultaneously monitor activities throughout the depth of the corps rear area. At best, he can attempt to exploit the information gathering potential of those units and organizations typically located within and

transiting the corps rear area, and weight his limited surveillance assets in those areas which are of greatest importance, based upon the commander's priorities; or, those areas which are most vulnerable, based upon the rear IPB.

The combat power of a corps is allocated on the presumption that it is more decisive in the close and deep operation areas of the battlefield, than in the rear. Rear operations are an economy of force effort; it is generally recognized that risk must be accepted in the rear area. The need to weight combat units forward, along with their ground-based and aerial surveillance assets, limits the availability of those assets in the corps rear area, and constrains the deputy corps commander's ability to "see" his battlefield.

Surveillance of the corps rear area is further limited by the fact that CS and CSS units typically located in the corps rear lack organic equipment and personnel with which to monitor activities beyond their immediate defensive perimeter. Though there are limited assets available to conduct deliberate surveillance in the corps rear area, the corps rear CP and subordinate RAOCs do not exercise direct command and control over them, at least beyond the scope necessary to direct base and base cluster security operations.

Combat units have historically been the most effective and reliable resource for monitoring and gauging activities in the combat zone (the area forward of the corps rear boundary). Unfortunately, our doctrine does not provide for the use of combat units to conduct surveillance in the corps rear area. General Patton used an entire cavalry group to monitor the activities of his divisions. By monitoring command nets and positioning themselves along major avenues of approach, the cavalry could beat the typical spot report in both accuracy and timeliness.⁵ Likewise, the German Wehrmacht relied heavily upon its security divisions to monitor and report activities in the rear area of its army groups on the Eastern Front during World War II. The Wehrmacht also depended heavily upon aerial assets to conduct surveillance of areas not readily accessible to its security forces.

Combat units can also contribute to surveillance of the corps rear area through active patrolling of terrain adjacent to supply routes, isolated areas between bases and base clusters, and other areas identified through the rear IPB as areas of likely enemy activity. MP units may not have sufficient resources to perform their area security missions unassisted throughout the corps rear area. Without local foot patrols, a support base is unlikely to detect a well trained Spetsnaz or guerrilla

unit until that unit has begun a penetration of a base's inner defenses.⁶

Battlefield surveillance radars can greatly enhance the efforts of a support base commander to detect and monitor activity beyond the base's immediate defensive perimeter. However, CS and CSS units do not have such radars as organic equipment. Ground surveillance radars would be particular useful at night, when enemy forces in the rear area would be most active. Ground surveillance radars do have inherent limitations. They require unbroken LOS (line-of-sight), and are thus of limited use in urban or wooded areas, and they fail to distinguish between friendly and enemy movements, an important distinction in the corps rear area. However, radars do require few personnel to operate and, used in conjunction with other systems, can provide surveillance and unbroken coverage over large areas.⁷

There are no early warning devices, such as the PEWS (platoon early warning system) in CSS units. Early warning must be accomplished with expedient devices and occupied observation posts.⁸ Also, because of the way CSS units have been equipped, trained and staffed, few units normally deployed within the corps rear possess the phones, wires or radios to fulfill both tactical and technical communications requirements.⁹

Army aviation can provide a tremendous contribution to surveillance of the corps rear area, though its availability to support rear operations is severely constrained due to the demands of close and deep operations. Isolated areas in the corps rear may be too vast or distant to be continuously monitored by ground forces. Surveillance of these areas may depend entirely upon aviation support. Air Force reconnaissance aircraft could also contribute to surveillance of the corps rear area, though air support planning rarely includes an allocation of reconnaissance sorties to rear operations.

Because surveillance resources are severely constrained in the corps rear area, those that are available should be pooled and managed at a level which is both efficient and responsive to the changing threat in the rear area. David L. Crocker, in his paper titled "Rear Battle at Corps Level: Are We Prepared?" argues that emphasis must be placed at all levels on establishing an "integrated base defense system." He further states that detection efforts should include troop observations, viewers, emplaced sensors and illumination devices. The PEWS should be utilized as an anti-intrusion detection system, and issued in sufficient quantities to provide adequate coverage of the base area. Warning systems and procedures must be established to disseminate notice of enemy attack.¹⁰

Sustained surveillance of the corps rear area is partially hindered by limitations of the corps rear CP and our doctrine for the deployment of RAOCs in the corps rear area. The corps rear CP and subordinate RAOCs are limited in their ability to orchestrate surveillance activities in the corps rear because they exercise little control over those surveillance assets which are available to conduct deliberate surveillance in the corps rear. Though RAOCs direct the security activities of rear area bases and base clusters, they do not direct the information gathering activities of units conducting support operations in the corps rear area; nor do they directly interface, for the purpose of collecting information, with units transiting the corps rear area.

Corps RAOCs are responsible for the tactical operations of bases and base clusters, and for the dissemination of early warning to them, from the very start of hostilities. However, RAOCs are reserve component assets and might deploy to Europe after the initiation of hostilities, creating a broader gap in the rear area information gathering and dissemination capabilities of the corps. There is a decision pending in Headquarters, Department of the Army (HQDA) to staff active component RAOCs in the forward deployed corps, and to place active component planning cells in the CONUS based units.¹¹

TRAINING.

The operational difficulties created by the absence of a reliable system with which to gauge and monitor activities in the corps rear area cannot be solved through simple modification of an existing training program. However, surveillance of the corps rear area can be enhanced through training, just as it can be degraded by the lack of it. Training issues which impact upon surveillance of the corps rear area fall into two general categories. The first pertains to the combat skills of CS and CSS soldiers in the corps rear area, addressing their abilities to recognize and communicate information of interest to the rear CP. The second category addresses the level of experience and training opportunities of the RAOC staff.

Our doctrine requires that support soldiers in support bases defend themselves and their facilities from enemy attack. For two reasons, this can not always be accomplished from within the defensive perimeter of the base or base cluster. First, base defense must be proactive. The enemy must be detected and engaged beyond the base perimeter or he will have succeeded in disrupting support operations at the base. A direct attack against a base or base cluster will generally require all base personnel to abandon their support activities and assume defensive positions at the perimeter. Second, support soldiers execute many of their duties outside the

perimeter of their base. They may be the first individuals to encounter enemy activity in the rear area while moving supplies forward, operating a refueling point or evacuating equipment to the rear. These soldiers can greatly expand the deputy corps commander's view of the rear battlefield if they are able to accurately recognize enemy activity and promptly report it to their chain of command or other appropriate organization.

It is imperative that CS and CSS soldiers be trained to identify enemy (and allied) vehicles, aircraft and uniforms. They must also be trained in the use of their organic communications equipment so they can report this information to their chain of command.

Support soldiers must also be proficient in the use of chemical detection equipment for their own protection and to provide adequate warning to their chain of command. Intelligence and advance warning of enemy chemical use are critical in the rear area. While CSS units routinely practice wearing their chemical protective equipment and decontamination procedures, less attention in training is paid to the use of chemical alarms, radiation monitors and warning indicators. Wearing chemical protective clothing all the time is not feasible in light of the demanding support requirements in the rear area.¹²

RAOC staff personnel and CSS commanders must fully understand each other's organizations and operations.

They must also know each other's information gathering and reporting capabilities, limitations and responsibilities in the rear area. This may seem a rather simplistic statement until one considers that forward deployed support units do not train with the reserve RAOCs that will exercise tactical control over them in time of war. RAOC personnel are often unfamiliar with the organization and operations of CSS units and fail to see the rear operations potential of the personnel and equipment in those units. For example, forklifts can provide portable observation posts that can be used from protected positions.¹³

The RAOC staff must be able to fully exploit the information gathering capabilities available to them. There is no single field manual or other doctrinal publication which collectively spells out the information gathering capabilities and responsibilities of units located within or transiting the corps rear area. The RAOC staff must know who is operating within and passing through their area of responsibility, and how to communicate with them. They must be able to interface with civil and military host nation organizations, request aviation support (in-flight reconnaissance) and coordinate movements with adjacent corps. They must certainly know the role and capabilities of those units tasked to provide direct support to rear operations.

ENDNOTES

1. U.S. Army, FM 100-15, Corps Operations (1989): C-3.
2. David L. Crocker, "Rear Battle at Corps Level: Are we Prepared?" (USAWC Military Program Studies Paper, USAWC, 1986): 10.
3. Kenneth R. Pierce, Jr., "Command and Control of Corps Rear Operations" (USAWC Military Studies Program Paper, USAWC, 1986): 15.
4. Michael Goodwin, "Update: Evolution of Rear Operations Doctrine," Military Police Journal, PB 19-88-1 (January 1988): 12.
5. Kenneth B. Smith, "Combat Information Flow," Military Review, Vol. LXIX (April 1989): 51.
6. Glenn M. Harned, "Offensive Rear Battle," Military Review, Vol. LXVI (February 1986): 32.
7. Norman L. Dodd, "Battlefield Radars for Detection and Surveillance," Asian Defence Journal, June 1987: 75.
8. Jo B. Rusin, "Soviet Threat to Combat Service Support Forces: A Training Challenge," (Air War College Research Report, Air University, 1988): 23.
9. Ralph C. Marinaro, "Rear Operations Doctrine: A Reevaluation," Military Police Journal, PB 19-87-2 (September 1987): 13-14.
10. David L. Crocker, "Rear Battle at Corps Level: Are We Prepared?" (US Army War College Military Studies Paper, USAWC, 1986): 15.
11. Michael N. Goodwin, "Update: Evolution of Rear Operations Doctrine," Military Police Journal, PB 19-88-1 (January 1988): 12.
12. Jo B. Rusin, "Soviet Threat to CSS Forces: A Training Challenge," (Research Report, United States Air War College 1988): 31.
13. John W. Ellis, "Preparing the CSS Base for Rear Battle," Army Logistitian, PB 700-88-1 (January-February 1988): 31.

CHAPTER VII

RECOMMENDATIONS FOR "SYSTEMATIC WATCH"

GENERAL

The deputy commander of a forward deployed corps in Europe lacks the surveillance resources required to simultaneously monitor all areas of interest in the corps rear. This is primarily because corps assets capable of conducting deliberate surveillance are normally weighted forward in support of close and deep operations. Any system established to gauge and monitor activities in the corps rear must fully exploit the existing information gathering and reporting capabilities of units in the rear, while minimizing reliance upon support from forward forces.

In spite of these constraints, the deputy corps commander must "see" the corps rear area in sufficient depth and detail to preempt enemy deep operations and sustain the corp's forward and deep operations. This requires resourceful, flexible and aggressive direction and coordination of the intelligence collection effort in the corps rear area. Commanders in the corps rear must be fully aware of the capabilities and limitations of all available intelligence resources in order to make the best use of them.¹ Systematic watch of the corps rear area must be flexible, efficient and responsive.

Systematic watch must be sufficiently flexible to accommodate information input from any unit positioned within or transiting the corps rear area. A corps information collection system must also be redundant and robust; it should not collapse as a result of the loss of a particular information reporting source or command and control headquarters in the corps rear area.

Systematic watch must also be efficient. The system must function continuously, even under adverse gathering conditions. Information requirements of the corps rear CP, as well as specified information gathering responsibilities, procedures and reporting formats, should be common knowledge to all who can contribute to the effort. Contributors of information should share a common communications system (such as MSE) and be cognizant of each other's responsibilities and capabilities for gathering and reporting information in the corps rear area.

Systematic watch must be responsive to the information needs of the corps rear CP. Information gathering and reporting processes should be streamlined to preclude delays or distortions caused by sequential processing of information. The deputy corps commander must be able to shift his surveillance capabilities rapidly across the rear battlefield in response to the changing tactical situation or to facilitate future operations.

This thesis argues that a reliable system for gauging and monitoring activities in the corps rear area can be established by fully exploiting the information gathering capabilities of assets typically located within or transiting the corps rear area, without increasing overall force structure. The thesis specifically recommends the creation of a rear area command structure to streamline information gathering and reporting processes in the corps rear area; organization of the corps rear area into RAOC areas of responsibility for the purpose of providing decentralized control and coordination of information gathering activities; and, the development of an integrated base detection system to economize upon the use of limited surveillance assets and fill surveillance voids in isolated areas between bases and base clusters.

REAR AREA COMMAND

Information gathering and reporting processes in the corps rear area can be streamlined through the organization of primary information contributors under a separate rear area command structure, similar to that organized by the Wehrmacht at the army group level during World War II. Units typically providing direct support to corps rear operations could be attached to this command, and would receive mission taskings directly from the corps rear CP. Other units, particularly those

providing general support to the corps, would be identified as "corps troops," and would continue to be responsive to the corps rear CP as tenants of the corps rear area (for purposes of terrain management and rear security). Both corps troops and troops of the "rear area command" would be listed separately in the published corps operations order.

Units attached to the corps rear area command would be those which normally provide direct support to corps rear operations and would likely contribute the greatest to systematic watch of the corps rear area. These units might include two or three MP battalion(s), a signal battalion, an engineer battalion (+), elements of the supporting MI TE (tactical exploitation) battalion, elements of the CA brigade, and the corps' subordinate RAOCS. The command might also include aviation and artillery units, as well as the TCF, if tasked to support rear operations.

The commander of the corps rear command (the deputy corps commander), would exercise command and control over units attached to the rear area command, for the purpose of conducting rear operations. The corps rear CP would assign mission priorities and geographic areas of operation to units attached to the rear area command, based upon the deputy corps commander's rear support priorities, the rear area IPB and individual RAOC assessments.

In essence, the rear area command structure would perform all those rear operations functions executed by the corps rear CP under our current doctrine. However, the rear area commander would also task attached rear area command units to operate within specific RAOC areas of responsibility, and to closely coordinate information gathering activities with the appropriate RAOC headquarters. These same units would maintain contact with the respective RAOC for the purpose of information gathering and reporting. Unit rear support priorities might vary between RAOC areas of responsibility. For example, the priority MP mission in one RAOC area of responsibility could be area security; it might be BCC in another. The deputy corps commander could direct uniform mission priorities throughout the corps rear area.

Information collection requirements might also vary from area to area in the corps rear. Information gathering efforts must vary accordingly. In general, requirements for surveillance assets in a particular area will be determined by the type of terrain (to include urban sprawl), the availability of host nation surveillance support, the stability of adjacent units, and the distribution of logistic support activity throughout the rear area. The corps rear CP should be the organization responsible to assess these requirements, and to direct the information gathering efforts of rear area support

units in these areas accordingly. Subordinate RAOCs would provide the corps rear CP with their own assessment of information gathering requirements in their area.

The corps rear CP must also determine the EEI (essential elements of information) that are critical to the continuity of sustainment operations in the corps rear area. Rear area EEI must be published in the corps operations order so that units located within the corps rear area know what information must be immediately reported to their chain of command, the nearest RAOC or the corps rear CP. The corps rear CP must also identify areas in which deliberate surveillance assets and capabilities should be concentrated. As with the rear IPB, these assessments must be continuously updated based upon the present and future tactical situations.

The corp's assessment of its rear area for the purpose of determining where information gathering activities must be focused should distinguish between those areas where surveillance is deemed to be "critical," "of interest" or "non-critical." For example, a large urban area where a number of MSRs converge would probably be a surveillance "critical" area, particularly if vital rear support activities were also located in the urban area. A "critical" assessment would necessitate the priority commitment of available deliberate surveillance assets to the area. A large open area, with potential use

by the enemy as a drop zone (DZ) might warrant continuous observation, but using limited assets. Surveillance of this area could be tasked to the nearest base or base cluster as a surveillance "of interest" area. A mountainous region far from logistic support assets might warrant only periodic surveillance and could be defined as a surveillance "non-critical" area. ADA units in the area might be able to provide the degree of surveillance coverage required.

These surveillance assessments would serve several purposes. First, they would influence the mission support priorities of units attached to the rear area command. They would also help determine where dedicated surveillance assets should be concentrated. Second, the assessments would assist in pre-planning at the corps rear CP for aviation overflight surveillance. Third, the assessments would assist the terrain management function by helping to guide the positioning of units in the corps rear area in a way which would exploit the use of their organic surveillance assets. For example, a reconstituting unit could be placed in an area where extra surveillance is required.

RAOC AREAS OF RESPONSIBILITY

The corps rear CP would assign each RAOC an area of responsibility, for the purpose of providing decentralized control and coordination of information gathering

activities in its designated area. The boundaries of each area would be established in consideration of rear area surveillance requirements, the number of functioning RAOCs in the corps rear, and the extent to which host nation support might be available to assist in the gathering of information, particularly in urban areas.

Each RAOC would be responsible for planning and coordinating all information gathering activities within its area of responsibility. The assignment of rear area command units to RAOC areas of responsibility for rear operations would provide a streamlined reporting channel directly to the RAOCs, particularly if these units were required to maintain contact with the RAOC for the purpose of information reporting. For example, military police, military intelligence, and civil affairs teams operating within a particular community would coordinate their information gathering activities with the RAOC responsible for the area in which the town lies. These units would coordinate directly with the RAOC for the purpose of information gathering. They would report critical information collected in the areas to the RAOC, which would then pass the information directly to the corps rear CP. The RAOC could also refocus the information gathering activities of these units in response to emerging information requirements of the corps rear CP. This system would avert sequential processing of critical information and

would be much more responsive to the needs of the corps rear CP.

Other units operating within or transiting through a RAOC's area of responsibility would also report enemy sightings and EEI directly to the RAOC, or to another unit of the corps rear area command conducting information gathering activities in the RAOC area of responsibility. For example, a transiting combat unit could pass information pertaining to an enemy sighting in the area to a military police patrol or a corps movement control team, whom would then pass this information to the responsible area RAOC. The transiting unit could also report information directly to the appropriate RAOC, though this would of course require that each RAOC's location, operating frequency (or MSE call code) and specific area of responsibility be published in the corps operations order, and that the transiting unit have access to that order. Each RAOC would in turn pass its collected information to the corps rear CP, where it could then be used to update the rear IPB or as a basis to reposition units of the rear area command in the corps rear area.

Employment of corps RAOCs as a central manager of information gathered within their areas of responsibility requires that information gathering as a function be elevated to the level of a primary mission for the RAOCs, and that RAOCs be properly staffed and equipped to perform

this mission. Information collected at a RAOC and subsequently forwarded to the corps rear CP would undoubtedly be more timely and accurate than information reported to the corps rear CP by miscellaneous units employing a variety of technical and tactical information reporting channels.

It is particularly critical that US military coordination with host nation organizations, for the purpose of collecting information in the corps rear area, be decentralized at the RAOC level. Each RAOC should be staffed with a language-trained G5 or CA representative to consolidate information gathered from host nation civil and military sources, as well as from citizens and citizen groups. This volume of information cannot be effectively managed by a single headquarters (the corps rear CP) for all users in the corps rear area.

INTEGRATED BASE DETECTION SYSTEM

Individual CS and CSS units lack surveillance resources with which to monitor activities beyond their defensive perimeters. Likewise, individual support bases, which are comprised of CS and CSS units, lack this capability. However, isolated areas between bases and base clusters are extremely vulnerable to enemy interdiction and must be monitored as an alternative to their being actively defended.

It is unlikely there would ever be sufficient surveillance assets in the corps rear to continuously monitor all of the critical areas between bases and base clusters. However, the pooled surveillance assets of the corps in its rear area could provide continuous, or at least periodic, surveillance of areas assessed by the corps rear CP to be most critical to rear operations, or assessed to the most vulnerable to enemy interdiction. For example, the corps rear command might gain temporary control over a reconstituting combat unit and its surveillance assets, or an aviation battalion in the corps rear area. These assets could be tasked to support a RAOC for the purpose of gathering information within the RAOC's area of responsibility.

Pooled surveillance assets are probably best managed by the corps rear CP, where they can be allocated to the RAOC with the greatest surveillance need or requirement. Decentralized control of information gathering resources at the RAOC would economize the use of these assets within the corps rear area. Aviation or combat units in the corps rear area could be further tasked by the corps rear CP, to a RAOC, for the purpose of augmenting that RAOC's limited surveillance or patrol assets. In essence, the RAOC would exercise control over its collective surveillance capability.

A support base detection system would invariably rely heavily upon the use of dismounted patrols in isolated areas; though it could also exploit any ground radar and/or aerial surveillance support made available to the RAOC by the corps rear CP. RAOC base defense liaison teams could coordinate use of the RAOC's acquired surveillance assets in support of the base or base cluster having the greatest surveillance requirement.

Combined US-host nation teams could patrol in the vicinity of base clusters, as well as establish ambushes along likely routes from the base areas to the base clusters.² When the spore of a Spetsnaz or guerrilla element was found, the team could track down the enemy force before it could successfully disrupt support operations at a base. These teams could also be formed from MP, national territorial forces, or SOF (if allocated by the theater commander).

ENDNOTES

1. U.S. Army, FM 90-8, Counterguerrilla Operations (1986): H-3.
2. Glenn M. Harned, "Offensive Rear Battle," Military Review Vol. LXVI (February 1986): 32.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. FIELD MANUALS:

U.S. ARMY. FM 5-100, Engineer Combat Operations. Washington, DC: Department of the Army, 1988.

U.S. ARMY. FM 6-20-30, Tactics, Techniques and Procedures for Fire Support for Corps and Division Operations. Washington, DC: Department of the Army, 1989.

U.S. ARMY. FM 19-1, Military Police Support for the AirLand Battle. Washington, DC: Department of the Army, 1988.

U.S. ARMY. FM 19-4, Military Police Team, Squad and Platoon Combat Operations. Washington, DC: Department of the Army, 1984.

U.S. ARMY. FM 24-1, Combat Communications. Washington, DC: Department of the Army, 1985.

U.S. ARMY. FM 33-1, Psychological Operations. Washington, DC: Department of the Army, 1987.

U.S. ARMY. FM 34-1, Intelligence and Electronic Warfare Operations. Washington, DC: Department of the Army, 1987.

U.S. ARMY. FM 34-25, Corps Intelligence and Electronic Warfare Operations. Washington, DC: Department of the Army, 1987.

U.S. ARMY. FM 34-60, Counterintelligence. Washington, DC: Department of the Army, 1985.

U.S. ARMY. FM 41-10, Civil Affairs Operations. Washington, DC: Department of the Army, 1985.

U.S. ARMY. FM 44-1, US Army Air Defense Artillery Employment. Washington, DC: Department of the Army, 1983.

U.S. ARMY. FM 44-16, Platoon Combat Operations - Chaparral, Vulcan and Stinger. Washington, DC: Department of the Army, 1987.

U.S. ARMY. FM 44-90, Hawk Battalion Operations. Washington, DC: Department of the Army, 1987.

- U.S. ARMY. FM 44-100, US Army Air Defense Operations. Washington, DC: Department of the Army, 1988.
- U.S. ARMY. FM 55-10, Movement Control in a Theater of Operations. Washington, DC: Department of the Army, 1986.
- U.S. ARMY. FM 55-30, Army Motor Transport Units and Operations. Washington, DC: Department of the Army, 1980.
- U.S. ARMY. FM 90-8, Counterguerrilla Operations. Washington, DC: Department of the Army, 1986.
- U.S. ARMY. FM 90-14, Rear Battle. Washington, DC: Department of the Army, 1985.
- U.S. ARMY. FM 90-23, Rear Security Operations: Army - Tactical Air Forces Procedures for Rear Security Operations at Echelons Above Corps. Washington, DC: Department of the Army, 1989.
- U.S. ARMY. FM 100-2-1, The Soviet Army: Operations and Tactics. Washington, DC: Department of the Army, 1984.
- U.S. ARMY. FM 100-5, Operations. Washington, DC: Department of the Army, 1986.
- U.S. ARMY. FM 100-15, Corps Operations. Washington, DC: Department of the Army, 1989.
- U.S. ARMY. FM 100-103, Army Airspace Command and Control in a Combat Zone. Washington, DC: Department of the Army, 1987.
- B. OTHER GOVERNMENT PUBLICATIONS:
- U.S. ARMY. Department of the Army Pamphlet No. 20-240, Historical Study, Rear Area Security in Russia: The Second Soviet Front Behind German Lines. Washington, DC: Department of the Army, 1951.
- U.S. Army Command and General Staff College. Student Text 100-2, U.S. Air Force Basic Data. Fort Leavenworth, Kansas: CGSC, 1989.
- C. UNPUBLISHED DISSERTATIONS, THESES AND PAPERS:
- Becker, Stephen C. "RACO - A Definition of Responsibility." Student Study Project, United States Army Command and General Staff College, 1981.

Bolick, Joseph A. "Soviet Tactical Surprise: The Doctrine and How to Counter It." School of Advanced Military Studies Program, United States Army Command and General Staff College, 1987.

Crocker, David L. "Rear Battle at Corps Level: Are We Prepared?" United States Army War College Studies Program Paper, United States Army War College, 1986.

Pierce, Kenneth R. "Command and Control of Corps Rear Operations." United States Army War College Studies Program Paper, United States Army War College, 1986.

Rusin, Jo B. "Soviet Threat to Combat Service Support Forces: A Training Challenge." Research Report Submitted to the Faculty in Fulfillment of Research Requirement, Air War College, Air University, 1988.

Saunders, James L. "Combat Power in the Rear: Balancing Economy of Force and Risk." School of Advanced Military Studies Monograph, United States Army Command and General Staff College, 1987.

Headquarters United States Army Training and Doctrine Command. "Soviet Threat to US Army Rear Area." Memorandum to TRADOC Activities, Office of the Deputy Chief of Staff for Doctrine, 1980.

D. ARTICLES:

Alexander, Bruce A. "The Front Behind the Lines: The German Experience with Rear Area Security in Russia," Military Police Journal Vol. 13, No. 3 (Fall 1986): 32-33.

Dodd, Norman L. "Battlefield Radars for Detection and Surveillance," Asian Defence Journal (June 1987): 60-75.

Harned, Glenn M. "Offensive Rear Battle," Military Review Vol. LXVI (February 1986): 30-36.

Heller, Charles E. "German Rear Area Protection, Eastern Front 1942-1944," Military Police Journal PB 19-87-1 (Spring 1987): 26-27 (+).

Marinaro, Ralph C. "Rear Operations Doctrine: A Reevaluation," Military Police Journal PB 19-87-2 (September 1987): 12-14.

Saint, Crosbie E. and Yates, Walter H. "Attack Helicopter Operations in the AirLand Battle: Rear Operations," Military Review Vol. LXVIII (October 1988): 2-10.

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USACGSC
Fort Leavenworth, Kansas 66027-6900

LTC Ernest M. Pitt, Jr.
2618 Holt Street
Ashland, Kentucky 41101